Message from the President

I am pleased to present this comprehensive, long-range plan for the physical development of the campuses of the University at Buffalo. It is driven by a vision that UB can achieve a higher level of excellence and finally take its place among the premier public research universities of our nation.

This is a bold and visionary plan. It aims at nothing less than making UB a model 21st-century public research university, one equipped to provide the knowledge we will need to meet the challenges of a rapidly changing world and to educate the people who will invent a world we do not yet know. The plan will make a better, stronger UB, help regenerate our regional economy, and rejuvenate our neighborhoods.

The plan provides a single context within which UB can manage all of its strategic capital assets and align facilities-related decisions with the university’s strategic goals. The plan identifies ways in which the university can gain full value from its physical assets, charting a course for developing strong partnerships inside and outside the institution. The plan establishes the importance of the physical realm as a vehicle for improving UB’s competitive position. And the plan thoughtfully aligns the development of the university’s campuses with the planning objectives of the surrounding communities.

This plan is the collaborative creation of the entire university community, expressing the collective aspirations of faculty, staff, students, alumni, neighbors and supporters. Implementing it will require philanthropic support and public investments, and the unwavering commitment and steady effort from all who care about this university and our region. The goal is to finally and fully achieve our vast potential.

John B. Simpson
PRESIDENT
This plan tells a story about how a very good public research university will become a great one, how the people of an institution that has strived for excellence across three centuries will finally and fully achieve its vast potential.

It is, to be sure, only part of the story—the part that tells how the university’s campuses, sometimes neglected, often unloved, will become great places, befitting an institution at the cutting edge of knowledge in a time when knowledge was never so crucial to our survival and success as a community, nation, and world.

It tells a story of how the university’s historic home, its classic collegiate campus on a hill, will be retrieved from the corrosive forces of time and given new purpose as a center of inter-professional education in all those fields so central to progress in urban life: law, education, social work, architecture, and planning.

It also tells a story of how the university’s “new” campus will finally fulfill the vision of the 60s-era dreamers who launched it two generations ago, how year by year it will grow into its purpose as the core of a great institution of higher learning, settle into its landscape, and become ever more comfortable and conducive to learning.

The plan also tells a story of how the university will embrace one of the strategic opportunities of our day—the integration of medical education with clinical practice and health sciences research—and create a great new urban campus within a campus, forging a future with a great hospital, a renowned cancer center, celebrated research institutes, and others.

And there’s more to the story: how the university will come to grips with the challenges of transportation in the waning days of cheap oil and the advent of global climate change; how it will remake its spaces—not just classrooms and libraries but everywhere—for a new generation of learners; how it will create places where people want to be, that they truly love; how it will connect those campuses to the communities they serve.

The dreams of the protagonists are lofty, but this is not a fairy tale. As the reader of the plan will discover, the story is told in great detail with the practical problems of parking and maintenance, traffic and winter weather, scheduling and capacity, financing and phasing and more, worked out in a disciplined manner.

This is a story not just to be told, but also lived.
The making of this plan, the writing of this story, has been a story in itself. It began with the work of a new university president to set a strategic compass for his stewardship of the institution. It continued with painstaking consultations with the university faculty. And it culminated in a simple but powerful strategy: If a public research university is to achieve its goal of excellence, it must organize its inquiry around areas of "strategic strength" focused on the solution of socially relevant problems. But if these enterprises are to thrive, the faculty concluded, they must have a depth and diversity of scholarly talent greater than what was available when they started. Thus it was agreed that to become better, the university should be bigger, adding faculty, students, staff, and facilities more appropriate to the task. This physical plan stemmed directly from that academic plan. The creation of the campus master plan, balancing a university, was an intensive learning process. A university and its campuses are far too large and complex for any single individual to know and understand. But together, the members of a university community know almost everything there is to know about it. So, the planners, university staff and a team of consultants, reached out to everyone they could, inside the university and out. They reached out to students, faculty, staff, neighbors, supporters, alumni, community leaders – everyone who cared about the future of the institution.A series of well-attended public forums punctuated the process, testing "guiding principles", with a broad audience in the first phase of work, evaluating "campus concepts" in a second, and presenting a "draft plan" for review and critique in a third. What the planners heard at each step along the way helped them adjust and refine the plan as they went. But there was also a much denser and more detailed conversation that took place across the entire planning process. The planners met with anyone who was interested to explain the ideas in the plan and hear their comments and concerns. They met with the official representative bodies of students, faculty, and staff; with neighborhood associations and chambers of commerce; with government officials and professional associations; with religious leaders, business groups and more – nearly 250 sessions in all. The planners also consulted carefully and continuously with the specialists on the university staff – all the people responsible for facilities, libraries, computers, classrooms, food service, dormitories, parking, transportation, public safety, student life, recreation, athletics, health and wellness, and more – to learn what they know and make sure the plan will work. The planners learned from the university community in new and unusual ways, too: asking students to submit their photographs of campus places, loved and unloved, for a campus wide photo-dialogue; using "clicker" technology to poll meeting participants in real time; working with campus subject matter experts in all-day charrettes; asking local "placemaking professionals" – architects, planners, engineers, and developers – to advise them on the concepts in the plan; and building a three-dimensional computer animation of the plan-in-development as a conversation piece with the community. They also worked to keep the university’s publics well-informed, providing information on an active Web site; gathering feedback on the draft plan using the web-based Flickr program, which allowed participants to make publicly-accessible comment on the ideas in the plan; presenting award-winning video of public forum events on statewide cable television and podcasts on a public Web site. The plan benefited greatly from the knowledge brought by a distinguished team of consultants – architects, planners, landscape architects, urban designers, transportation specialists, educational programmers, historic preservationists, facilities condition analysts, and environmental experts – who joined with the university planning staff to produce this work. The marriage of what they know with what the people of the university know has helped produce something very special.
This was also the story of a plan that moved to implementation well before it was completed. The planners were committed to the idea that the planning process should never be a reason to delay the realization of projects based on the principles the plan would express. Instead, projects “in the pipeline” were adjusted to meet whatever new expectations the plan would present, to take advantage of whatever new opportunities it might offer.

Each new project was not only a chance to fulfill the developing plan. It was another opportunity for the institution to learn many of the new things it would take to implement the plan in the long run. So, the creation of a new pharmacy school building became an opportunity to learn about the renovation potential of old buildings. The design of a new engineering building offered a chance to learn more about environmentally sustainable design and construction standards and the making of new public spaces.

The development of a joint university/health care provider project to accommodate the complex synthesis of clinical practice, teaching, research, and biomedical business development presented opportunities for the partners to learn about coordinated programming and design, cooperative property acquisition, mixed financing models, and inter-institutional collaboration in general.

The learning never stopped. Designs for a new residence hall incorporated the plan’s aspirations to create a new “learning landscape” across campus in mid-project. Architects met the demand that the new building become a link in the campus-wide system of weather-protected passageways. Project planners learned new ways to construct project pro formas. Facilities managers worked to align maintenance capital with new construction capital to multiply the impact of both.

Sometimes it was painful, but it all added to the capacity of an institution to make its own future, to create its own places. The broader lesson, perhaps, was that campus-building resources can have benefits far beyond the intended targets of the investment—if people work together. So, for example, the reconstruction of a campus-wide pedestrian way made every building on it look better. Insertion of a small atrium between two buildings will make both buildings function and feel better.

Now the plan is presented with nearly half of its first phase already completed. But the plan is not finished. No plan ever is. As the university proceeds to live out this story, to further implement this plan, it will be important to understand that circumstances will change, new lessons will be learned, and adjustments will be made. That’s how plans work. The story won’t play out exactly as written, but the intention, the aspiration for excellence, the goal of becoming a great public research university, is sure to carry the university forward to success.
Chancellor Samuel P. Capen, with Walter P. Cooke, University of Buffalo Council Chairman, and Thomas F. Cooke, Chief Marshal, lead the faculty in a procession across campus to the dedication of Foster Hall, 1922.

The UB 2020 strategy, of which this Comprehensive Physical Plan is an enabling element, takes as its goal nothing less than the advancement of the University at Buffalo into the ranks of America’s great public research universities. Buffalo needs and New York State deserves an institution that can take its place among the best of these – Michigan, Washington, Wisconsin, North Carolina, and UCLA – to educate our people and to produce the knowledge our region, state, and nation need to thrive in the 21st century. This goal is within our reach and it is right that we strive for this level of excellence.

The strategy for achieving this grew out of a deliberate engagement of university leadership and academic faculty in a careful assessment of the specific strengths of UB’s schools, departments, programs, institutes, and faculty researchers and teachers. The strategic analysis that emerged from this process was simple: UB has a distinguished, talented, and productive faculty. It has an array of academic specializations and professional programs to rival any university in the nation—nearly 300 undergraduate, master’s, doctoral, and professional degree programs, across the arts and sciences, in the professions of law, management, engineering, education, social work, architecture and planning, and in the health sciences, medicine, nursing, public health, dental medicine, and pharmacy. Yet the faculty in each of these schools is not yet large enough to provide the depth and diversity of expertise to generate the quality and quantity of research that is the hallmark of a great public research university.

Through the same analysis, it was possible to identify a range of areas in which UB enjoys concentrations of faculty excellence. These are strengths on which we can build and which can be connected in interdisciplinary fashion to generate the research necessary to develop new solutions to a series of urgent social problems – disease, disaster, the health of our democracy, and the vigor of our culture – and to explore the potential of socially beneficial technologies – computing, bio-engineering, nano-technology, and renewable energy.

What is needed, administration and faculty concluded, is to grow the faculty to a more productive size and to focus new faculty hiring on these identified “strategic strengths.” The university will also need to grow its student enrollment to match the expansion of the faculty, and university space will need to be added to accommodate new faculty, students, and staff. But it must be remembered, UB chooses to grow not for the sake of being bigger; UB chooses to grow in order to be better.

Thus, the outline of the plan for growth – 1,000 more faculty, 10,000 more students, nearly 7 million square feet of additional space—may sound arbitrary. But they are far from arbitrary. Rather, they represent the considered judgments of the President, Vice Presidents, Deans, Chairs; distinguished faculty, and dedicated staff about what growth is necessary for each part of the university—and the university as a whole—to achieve a new level of excellence.

This part of the work of making a great public research university—this strategic assessment—was initiated by President John B. Simpson and Provost Satish K. Tripathi over several years following their installations at UB in 2004, but the university’s commitment to this strategy—and the investment of the larger Buffalo Niagara community in it—extends far beyond the President’s and the Provost’s involvement. It has been developed by faculty who were assembled here at UB under presidents Greiner and Sample and even as long ago as President Ketter. Likewise, the strategy will be realized by faculty, and advanced by alumni and community supporters, long after this President and Provost have been succeeded.

Individuals can contribute, and many have done so. But no individual can take credit for the whole or own it. The excellence on which UB builds, and the excellence for which the institution continues to strive, is cumulative and collective. It is part of the long, historic path of a great university.
ORIGINS OF THE UNIVERSITY

The story of the University at Buffalo is an odyssey across more than 170 years. It is a tale of opportunities grasped and opportunities let slip away. It is a parable of perseverance in the face of difficult circumstances and extraordinary contributions from individuals at crucial moments. It is a story of striving for excellence and the persistent friction between two sets of expectations: one that UB will be a great university, and another that it will be merely good enough.

The outlines of the story are simple. The leaders in a growing 19th century frontier town aspired to create a university, but succeeded at first only in starting a school of medicine. Decades later they added the pharmacy, dental, and law schools. As the 20th century dawned, a college of arts and sciences was established and a permanent campus secured. With strong and visionary leadership, the institution grew, despite the lack of a stable financial base, through the Roaring Twenties, the Great Depression, the Second World War, and the Baby Boom.

In the early 1960s, the private institution hitched its fortunes to a burgeoning state system of higher education, moved to a massive new campus, and grew into a fine example of a modern 21st century public research university. But, of course, there is much more to the story.

Nineteenth century civic leaders understood that a college or a university—some institution of higher learning—was essential equipment for any city that aspired to greatness. Buffalo was such a city, and a scant four years after its incorporation in 1832, a movement was organized to create a university. Some accounts say it was to be called Western University, others The University of Western New York, but either way, land was set aside for a campus in what was to become Buffalo's close-in Allentown neighborhood, and pledges were raised to establish the faculty.

The founders took as their models the great institutions of England and America: Oxford and Cambridge, Harvard and Yale. As a local newspaper editorialized, “...the new university ought to be made at once to assume a position among the first of our literary institutions.” The aspiration for greatness was there from the start, but the school never opened. The boom times of the Jacksonian era that made planning for the university possible collapsed in the Panic of 1837. The new professorships, it turned out, were “endowed only with promises.”

A second attempt was made a decade later, and the school was finally established in 1846, reflecting an ethos of “try, try again” that would stick with the University of Buffalo across the decades.

“We are inclined to believe that a university can now be founded,” read an editorial in the Buffalo Commercial Advertiser late the previous year, “to plant it firmly, and make it what it ought to be, is the work of years—perhaps of centuries. But our citizens can commence the enterprise at once, and will soon begin to reap its sweet first fruits; and we most earnestly advise them to consult together and put their united shoulders to the wheel.”

The state legislature granted the new university a charter, but only the Medical Department of the University of Buffalo was actually commenced, staffed with faculty lured away from the medical school down the road in Geneva. The new chancellor, Millard Fillmore, declined to establish an endowment fund—a decision that would hobble UB for most of its existence—and decided the school should be operated solely on the tuition of the students. But the faculty distinguished themselves as medical innovators, pioneering clinical education in an era in which lectures had been considered adequate training, and making advances in the treatment of Typhoid fever, fractures, tumors, the application of antiseptic methods in surgery in the U.S., and more.

For forty years UB was solely a school of medicine. In 1886, a College of Pharmacy was established, the following year a School of Law (originally affiliated with Niagara University), and in 1892 the Department of Dentistry. A School of Veterinary Medicine opened briefly during the same period and a Teachers College survived a few years. But still there was no provision for the arts and sciences; no program to provide instruction in the basic liberal education of young men and women had been created. Yet there was a persistent discourse about the need to establish the “greater university,” a phrase which today we might decide to take two different ways. At the time it was intended to signify the full array of programs that a university ought to have, starting with the liberal arts and sciences. But there was always the other echo: the people of Buffalo wanted UB to be something more, something better—greater.
For more than a century, the UB Dental School – now School of Dental Medicine – has produced the vast majority of practicing dentists in Buffalo and Western New York.

Construction of Lockwood Library (now Abbott Hall) in 1934 put in place one of the major pieces of the E.B. Green master plan under President Capen.

THE “GREATER UNIVERSITY” EMERGES

As the new century dawned, the effort to establish the arts and sciences gained traction. Limited programs and professorships were created to provide a broad education for UB’s professional students. Students not seeking the professional credentials on offer were nonetheless so hungry for higher education that they enrolled in courses anyway without expectation of matriculation. Then, policy generated at the American Medical Association increased the pressure to provide a core liberal curriculum. In 1911, Chancellor Charles P. Norton applied to the Buffalo Common Council for funding for a college of arts and sciences – $75,000 annually for 25 years – but was rebuffed.6

In 1915 the university received the gift of a building on Delaware Avenue at Niagara Square to house the College of Arts and Sciences. The donation of Townsend Hall was made on the condition that UB also raise operating funds for the college, and for some time it looked like no further support would be forthcoming. But later that year, Grace Knox, widow of Seymour H. Knox, Sr. stepped forward to endow the college, first with a gift of $100,000, three subsequent annual gifts of $50,000 each, and finally a $250,000 bequest – in today’s terms, a donation worth about $45 million.7

The core of the greater university was finally established, but the institution was still in pieces, the School of Medicine on High Street, the School of Law on West Eagle Street, and the college two blocks to the north. Six years prior, however, Chancellor Norton had reached an agreement with the County of Erie to purchase the site of the county almshouse and asylum for a new campus. It comprised a total of 106 acres and several buildings on a site bounded roughly by Main Street, Bailey, and Winspear avenues. The sale was for the modest sum of $56,000, and with a condition attached that the university begin to build and occupy its campus within ten years of the transfer of deed.8

Time had already run out in 1920 – Norton had secured an extension and purchased additional acreage – when UB mounted its first major capital campaign. Led by Walter P. Cooke, chairman of the UB Council, the drive netted $5 million from 24,000 donors, most of whom were not alumni, but rather citizens at-large who understood the importance of the university to the future of Buffalo. “In ten days,” wrote UB historian Julian Park, “a comparatively unknown and poverty stricken university acquired funds, friends by the thousands, and international fame.”9

Another fund drive at the other end of the decade ended on “Black Friday,” and much of the $9 million in pledges never materialized. But the first campaign made it possible to recruit Norton’s successor, Samuel P. Capen, who would take the helm of the university in 1922 and lead UB through an extraordinary period of consolidation and growth. Over the next three decades Capen commissioned a master plan, the structure of which graces the South Campus to this day, and forged space for the growing university including the construction of Foster, Crosby, Norton (later Harriman), Lockwood (later Abbott), Clark, and Parker halls and the renovation of the former almshouse as Hayes Hall. He also hired a distinguished faculty, established path-breaking programs in liberal education organized around seminars and one-on-one tutorials, and oversaw the creation of schools of business, education, social work, and engineering, as well as The Graduate School, the continuing education division known as Millard Fillmore College, and the separation of the School of Nursing from the School of Medicine. By the end of Capen’s tenure, UB was by every measure a greater university, poised to become greater still.10
Hayes Lawn on the South Campus provided an idyllic setting for an outdoor lecture, 1959. By 1972, South Campus was bursting at the seams, parking lots full, and historic quads crowded with temporary buildings.

Governor Rockefeller led the ceremonial ground breaking for the new campus in October 1968 with the help of (L-R): President Martin Meyerson, Seymour H. Knox, Jr., and Elizabeth Luce Moore, Chair of the SUNY Board of Trustees. The young boy is Matthew Meyerson, son of the president.

A NEW PERIOD OF EXPANSION

The post-Capen and post-War years brought further growth, as returning servicemen, funded by the G.I. Bill, swelled the enrollments of colleges and universities across the country. Under Chancellor T. Raymond McConnell, UB became a residential campus with the construction of McDonald, Michael, Pritchard, and Schellkopf halls, to be followed by Kimball, Clement, and Goodyear halls under his successor, Clifford C. Furnas. During the latter’s tenure, UB also built Capen (later Cary), Farber, and Sherman halls to accommodate medicine, Norton Hall for the student union, and Dishendorf Hall, which housed several major lecture halls.

By 1962, enrollment at the University of Buffalo had grown to nearly 11,000 students, and pressure was mounting to expand once again. The university’s ambitions had always outstripped its funding, and UB leaders realized that with the resources of the state behind them, many things would be possible. The New York State Legislature in 1948 had established the State University of New York, the last big state to create a system of public higher education. A decade later, Nelson A. Rockefeller was elected Governor of New York and directed a massive investment in the growth of the SUNY system. When SUNY leaders began to explore the possibility that the University of Buffalo might become one of four university centers in the system, UB leaders responded eagerly. In 1962, the private University of Buffalo was absorbed into SUNY and became the University at Buffalo.11

The logical space for campus growth was always the city-owned Grover Cleveland Golf Course across Bailey Avenue. It was the site of the 1912 U.S. Open Championship but beyond that an ordinary eighteen holes. Even before the merger with SUNY, President Furnas attempted to purchase the land, only to fail to come to terms with the city on a price. The university also acquired the Audubon Golf Course in Amherst in preparation for a possible swap. None of these schemes panned out. Only after SUNY had settled on a suburban location for a new campus did city leaders, suddenly eager to keep the university in Buffalo, come to the table as motivated sellers, but it was too late.12

For some Buffalonians, the choice of a suburban campus appeared to be, in hindsight, a colossal mistake. The result was a campus isolated and bleak. An opportunity to revitalize the center city was missed. But the decision-makers of 1964 lived in a different world and their thinking was shaped by a different set of assumptions. They planned for a university of 20,000 students or more and saw the Main Street Campus, even with the neighboring golf links added, as too small to fit all the facilities they would need. Governor Nelson A. Rockefeller, as he suggested to Furnas’ successor, Martin Meyerson, imagined a future UB at double that size and pushed for a bigger, greenfield site.13

In 1966, citizens organized to protest the planned relocation of UB and argued for a new campus on the waterfront. In the heat of a political campaign, the governor agreed to reconsider the move and other political leaders piled on. But ultimately SUNY and UB officials concluded that the waterfront site was also too small and too constrained by the uncertainties of land acquisition and resident relocation.14

It is a moot point today, but in retrospect, even a university as big as UB is now never needed a thousand acres. The distance from Mathematics to Alumni Arena on North Campus is no greater than the distance from Clement to Parker on South Campus. At modestly higher densities the expanded campus would have fit easily on the neighboring golf course or on what is now Waterfront Village and LaSalle Park, the waterfront site then proposed. On a more urban campus even 10,000 additional students anticipated today could have been accommodated. The planners of that day, however, yearned, in high-modernist fashion, for a great blank canvas for their schemes. In that context, a site with no limits – save for a high water table – was an unalloyed advantage.

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The plan for the Amherst Campus powerfully expressed the expanding aspirations for the institution—by the time the land was acquired it was targeted for 32,500 students. With the plan, UB stated its goals unequivocally: “to become one of the major universities of the nation” and “a pre-eminent graduate center” within the next decade. It aimed to be an institution of interdisciplinary character with a commitment to “truly liberal education,” one that fosters a “community of scholars” who enjoy the “complexity and diversity” of a large institution as well as the intimacy of distinct residential colleges, one that prizes innovation and connection to the community around it.15

An early concept for the campus, by architect and Buffalo native, Gordon Bunshaft of Skidmore Owings and Merrill, proposed a sprawling, unitary, mega-structure to house all academic functions under one roof. UB and SUNY leaders rejected it. SOM’s successor on the plan, Sasaki Dawson DeMay, kept the linear orientation of Bunshaft’s design—still known as “The Spine”—but realized it in a series of conventionally individual buildings along a network of east-west pathways. The plan also incorporated President Meyerson’s proposal for a system of residential colleges intended to support life and learning on an intimate scale as a counterbalance to the potentially overwhelming scale of the institution as a whole. By 1970 they were ready to go.16

Unfortunately, UB had spun its wheels at a most inopportune time. A series of events—the reconsideration of the site, the distractions of campus unrest, and a dispute over minority hiring—set back years. So, while its SUNY peers—Stony Brook, Buffalo, and others—were building, UB was still planning. And by the time UB was ready to build the world had turned. The affluent 1960s had given way to the straightened 1970s. The year 1973, in particular, brought a deep recession, an inflation that led to a long construction moratorium—set the plan back years. So, while its SUNY peers—Stony Brook, Albany, and Binghamton—were already building, UB was still planning. And by the time UB was ready to build the world had turned. The affluent 1960s had given way to the straightened 1970s. The year 1973, in particular, brought a deep recession, an inflation that led to a long construction moratorium—set the plan back years. So, while its SUNY peers—Stony Brook, Albany, and Binghamton—were already building, UB was still planning.

In 1972, students started moving in, but it would be a full decade before even the basic elements of the North Campus were complete. The School of Architecture and Planning. Writing after his retirement, former President Greiner referred to the period as “The Great March to North Campus.” During these years—especially during the 1970s, but for many years afterward—students spent much of their time on the bus, not walking. This was the era of the Ridge Lea Campus, a swath of non-descript temporary buildings in Amherst that provided “swing space” for the growing, shifting university.18

In 1988, as this exodus was subsiding, President Sample would address a group of young civic leaders and reflect on the choices that UB had made. Having examined the record he could see pros and cons for each of the alternatives for the new campus: Amherst, Main Street, and waterfront. But also examining the record, and having experienced much of the distraction and dislocation during his own tenure, he concluded that, unless there were powerful reasons to the contrary, the one thing he would never have done is attempt to relocate a mature university. The energy expended, not only to grow, but also to move, would much better have been spent in advancing the central mission of UB—teaching, research, and service.19
Building UB — The Comprehensive Physical Plan

The university held its general commencement before the grand stand at Lockwood Library, June 6, 1955.

The city of Buffalo, the Buffalo Niagara region, and all of New York State.

Even those who do not participate directly in our growing “knowledge economy” will benefit from the success of the university. Research and development, nanotechnology, engineering, and other emerging sectors are becoming the 21st century equivalent of Buffalo’s once-great 20th century industries based in grain, steel, and autos. Back then, everyone knew they would need an institution of higher learning. They would need a railroad, too, but every “booster” knew that they would need to support the creation of a college or a university for his home and place of business to excel. Not only would it provide the well-trained professional class — doctors, lawyers, and engineers — needed to serve the growing population, it would imbue local culture and a level of refinement necessary to support the more cosmopolitan way of life to which they aspired.

“City is great,” wrote Julian Park, the first Dean of Arts and Sciences at UB, “unless it rests the eye, feeds the intellect, and leads its people out of the bondage of the commonplace. Buffalo, every city, has agencies which do one or another of these things, but to do all three it must be blessed with the moral reservoir of higher education.”

19 Throughout the decade, the importance of universals to cities has only increased. As the requirement for a college degree — and in many cases a graduate credential — has become almost universal, the supply of educated professionals has been ensured more and more by local and regional institutions of higher learning. Indeed, today, in Buffalo, the overwhelming proportion of attorneys, dentists, and pharmacists, and a significant number of our physicians, architects, business people, and engineers were trained at UB. The urban and regional economy would not work without them.

Even more, the Buffalo Niagara economy increasingly depends on the practical application of knowledge generated at UB, especially in health sciences, engineering, and technology, as it is translated into products and services, companies and jobs. Overall, the economic specifics about our aspirations. We are aiming not only at making a “greater university,” or to be the “Berkeley of the East,” or even to be “top ten.” The planners of the 1950s set more definitive goals for the institution: to place one quarter of our doctoral programs in the arts and sciences in the top quartile of all such programs nationwide; to meet the emerging demand for graduates with a master degree as the standard credential in the professional workplace; to challenge our undergraduates intellectually; and to become the number one public research university in the Northeast.

Our goals today are also more specific. Except that we no longer see our future as a “mid-sized” institution, but as a larger one with the depth and diversity of faculty and strength of resources to compete with our peers — Rutgers, Iowa, and Irvine — and to challenge our “aspirant peers,” the schools we want to be like — Michigan, Washington, North Carolina, and others. Everything in our history as an institution suggests that such striving will be rewarded sooner or later.

Great Cities Have Great Universities

Nineteenth century American city builders understood that if the settlements they planned were ever to become truly great, they would need an institution of higher learning. They would need a railroad, too, but every “booster” knew that they would need to support the creation of a college or a university for his home and place of business to excel. Not only would it provide the well-trained professional class — doctors, lawyers, and engineers — needed to serve the growing population, it would imbue local culture and a level of refinement necessary to support the more cosmopolitan way of life to which they aspired.

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**A PERSISTENT HUNGER FOR GREATNESS**

The history of UB can be read as a catalog of opportunities – either seized or squandered. Perhaps the greatest opportunity seized was Chancellor Norton’s deal to buy the Main Street campus from the county. Or it might have been the move of Chancellor Furnas made to secure the merger with SUNY. The greatest opportunity squandered might have been the refusal of the City of Buffalo to come to terms over the sale of Grover Cleveland Golf Course. Others might say it was the failure of UB to make a deal for a new university-county hospital on the South Campus.

The university’s history can also be understood as a record of institutional perseverance: the aborted founding of 1836 followed by the successful establishment of UB in 1846; the series of false starts to create a college of arts and sciences in the 19th century capped by the triumph of Mrs. Knox’s historic gift to plant the Department of Liberal Arts and Sciences in Townsend Hall on Niagara Square in 1915; the dogged build-out of the massive new campus in Amherst.

We can also see the history of the institution in terms of the great contributions of its leadership. The job of a university executive is always, not to run an institution, but to build one. All of UB’s greatest chancellors and presidents have gone about their work in that way. For if a university is not moving forward it is, inevitably, moving backwards. The founders of the UB School of Medicine hoped not only to train doctors but to advance the knowledge of medicine for the good of society. These high hopes were also reflected in the founding of the pharmacy, law, and dental schools. And throughout the 19th century, the leaders of UB strove to achieve the “greater university.”

At the dawn of a new century, Charles P. Norton was there to provide the arts and sciences foundation necessary to citizenship as well as professional education. Samuel P. Capen came to build the first campus, populate it with faculty of excellence, to create a center of graduate education and to pioneer undergraduate liberal education for the 20th century. Chancellor, then President, Furnas provided leadership to grow the university to meet the needs of a post-war world. President Ketter oversaw the difficult migration from Main Street to Amherst. Presidents Sample and Greiner helped to settle the transplanted institution and expand its capacity in research. Ketter, Sample, and Greiner alike labored to fulfill the 1970 plan that conceived the new center of UB.

Now it is President Simpson’s turn to build something of lasting significance. And before long it will be up to someone else. Yet throughout this history, it has always been up to us – everyone who understands the importance of this university and the role it can play in the life of community and society. The contributions of citizens, from Mrs. Knox or the thousands who contributed in 1920, to our contemporary benefactors, have been crucial to UB’s growth.

**FIGHTING THE TYRANNY OF LOW EXPECTATIONS**

Perhaps the most controversial in the history of UB is that the people of this institution have always strived for excellence. Sometimes it has achieved its goals. Other times it has fallen short, or, typically, been temporarily blocked from the goal by circumstances beyond the institution’s direct control. But if there has often been a gap between what UB was and what the university hoped it would be, there has been a parallel gap between what others expected for the university and what UB and its supporters aspired to achieve.

Municipal officials in 1915 saw no need to spend public funds for the nominally private university. Even more, since the merger with SUNY, a notion has circulated that the University at Buffalo exists to provide an adequate education at a modest cost for the masses of above-average students who grow up in places like Lockport to Long Island, from Jamestown to Watertown, from Brooklyn to Buffalo. A degree from UB might not carry the cachet of a degree from Michigan or Washington or Ohio State. But it was pretty good and it was cheap.

The actions of UB leaders and their backers and the aspirations of UB students, however, have always believed this notion of a happily mediocris UB. It was not a vision of settling for “pretty good” that led then-Chancellor Furnas to pursue the opportunity to merge his private university with the public state university system. SUNY, it was assumed, could provide UB with the resources it could never assemble for itself, and allow UB to achieve a level of greatness to which it had always aspired but could not quite reach. The faculty that Furnas and his successors, Martin Meyerson, built, especially in the world-renowned English Department, also reflected a university that was shooting for the moon, not for second best.

Planning for campus expansion, both in the later days of the private University of Buffalo and in the early days of the public University at Buffalo, expressed a size and scope of ambition that could not have been aimed at some model of adequacy or minimum standard. UB pursued, and purchased, big chunks of land. When the need to find UB’s first campus became acute, Chancellor Norton rejected a site near Altaright Art Gal- lery because it was too small to hold his vision for the future university. The purchase of the Main Street campus from the County reflected his hope and expectation that someday UB would be a much more substantial institution. Similarly, one of the reasons the decision-makers of the 1960s rejected the idea of a downtown or waterfront campus was because they believed those locations lacked suitable space to accommodate twenty thousand students. Indeed, SUNY officials who backed the move to Amherst knew that Governor Nelson Rockefeller imagined a university of 40,000 students – twice the number for which they initially planned.

UB’s extravagant aspirations for its future were exemplified by the actions of Ketter, after he stepped down as President and returned to his faculty position. Ketter worked to set up an earthquake engineering laboratory, and by the mid-1980s organized an audacious proposal for a federally funded research center that snatched a large, multi-year grant from West Coast universities who had assumed such support would naturally fall to them. The center he established has continued to grow, broaden its mission, and excel.

Likewise, UB has rocked the boat in its quest to restore Division I athletics, long contrary to SUNY system wide policy, but something which presidents Sample, Greiner, and Simpson have all understood was crucial to raising the public profile of the university and deepening community affiliation with UB. University leadership has challenged the status quo in more fundamental ways, as well. The mission of SUNY member schools is to pursue broad access to higher education of a high quality. Keeping tuition levels down has been successful in promoting access. But achieving the level of excellence sought by UB 2020 will require additional investments that only increased revenues can provide. So, instead of promoting access through lower tuition, UB leadership has proposed a more flexible tuition policy to generate larger and more predictable revenues, and invest part of these revenues in additional need-based aid. This will help us achieve both excellence and access. As President Simpson has often repeated, “access without excellence is discrimination.”
Indeed, UB has always been a pathbreaker in matters of access and equity. The medical school graduated its first woman doctor in 1876 and its first African-American in 1880. Generations before civil rights became a national pre-occupation. All of the “firsts” for women—in law, pharmacy, and dental medicine—were made in the 19th century. And when the copy was written for UB’s historic 1920 endowment campaign, it dedicated the proceeds to “all Buffalo Boys and Girls—regardless of race, creed, or class.”

One of the reasons SUNY sought to acquire UB in 1962 was because the medical school had been accepting Jewish students for decades—something other institutions in New York State still refused to do at that time. But it was for the storied 1958 UB Bulls men’s football team to make the point more dramatically. Invited to face Florida State University in the Tangerine Bowl, the players refused to go when they learned that stadium rules would forbid the participation of two black teammates. Today, UB is not merely diverse but cosmopolitan, with one student in nine coming here from another country to study. Always at the heart of the enterprise for UB has been a devotion to academic freedom. In his 1966 centennial address, Capen announced the institution’s pride in three attributes—“the democratic character of its institutional life, its willingness to experiment, and its devotion to intellectual freedom”—and laid down a marker for his successors: “To the free exercise of the mind this university is irrevocably committed.”

LESSONS FROM HISTORY

The university has changed so much it can be a challenge to see it clearly. The UB of the mid-19th century was not the UB of the 20th century, which was already different by the 1930s and changed further still in the 1950s even before we got to what Buffaloans of a certain age consider the great period of change in the 1960s. Likewise, the institution has continued to grow and develop over the succeeding decades. UB in the 1970s was a very different place than UB in the 1970s. Today it is even further—a bigger, better, more powerful and productive than ever before. Yet we are so fixed on what UB had been that we cannot appreciate what it has become, let alone what it can be in the future.

There is a warning in the long history of UB for those working today to improve and expand the institution. It is simply to move quickly when opportunities arise. The corollary to this lesson would be to prepare for the opportunities before they become apparent. The Comprehensive Physical Plan has attempted to do both, moving projects that were already in preparation forward in relation to the emerging framework for change, while setting the strategy for future developments.

Timing is crucial. What was not possible in 1873 became achievable in 1874. The beginning of the 1920s provided an opportunity to move forward; the Crash of 1929 marked a different turn. The 1960s were flush with funds and “Rockefeller’s passion for SUNY,” while the 1970s were constrained and SUNY lacked such a champion. The current recession presents some stark limits. But it also holds some opportunities—when the economy recovers, and if investments in higher education are understood as a means to speed that recovery. We need to be ready.

At the same time, UB’s plans need to be flexible. If the history of the university tells us anything it is that the circumstances we face are constantly shifting. Business cycles, real estate markets, policy fashions, political movements, social and cultural transitions, and technology developments, not to mention changing educational philosophies and the evolving state of our knowledge, all require that campus planners adjust their thinking and recalibrate their plans as circumstances change and as new and unforeseen opportunities arise.

IMPERATIVES FOR CHANGE

In the long span of its history, the University at Buffalo has almost always been a fragmented and dispersed institution. In the late 19th century, when it consisted only of medicine, law, pharmacy, and dentistry, it occupied several different locations and lacked a true campus. When the Department of Liberal Arts and Sciences was finally created in 1915 it, too, had its own spot. The establishment of the Main Street campus made possible some consolidation of the activities of the institution, and its growth was prodigious, but medicine and law continued to be outliers. During the 1970s as the decision to create a new campus in Amherst was implemented, UB actually had three campuses—North, South, and Ridge Lea—and various other off-campus locations.

Today, UB is as settled and consolidated as it has ever been, with most of its activities on the North Campus. Four of the five health sciences schools have now resided on South Campus for nearly half a century and are soon to be joined by the fifth. Architecture and planning have occupied Hayes Hall there for most of its 40 years of existence. Only the outposts on the Buf falo Niagara Medical Campus are relatively new. Is UB really ready to shuffle the deck once more?

The simple answer is that it must. The rapidly emerging realities—if not the long-deferred requirements—of contemporary medical education and bio-medical research demand that UB’s health sciences schools be located in close proximity to the region’s most comprehensive critical care hospital and its nationally ranked cancer research center. Indeed, the activities of physicians as researchers, clinical practitioners, and teaching faculty need to be more closely integrated than ever before. Having health sciences on South Campus, and our center of clinical activity downtown, is anachronism.

Meanwhile, UB’s investment in the North Campus is so large, and the campus so settled that at this point it is impossible to imagine that it could move. The lessons of history tell us we should know better than to try.

At the same time, the university owes it to the community to continue to occupy South Campus, ground it has held for nearly a century. Our departure would leave a gaping hole in the city. Moreover, we have a compelling purpose to inhabit the historic buildings and grounds of South Campus. The plan proposes the concentration of UB’s professional schools—law, education, social work, and architecture and planning—in a new interdiscipli nary configuration on South Campus. There will be a cost to moving and a cost to separation from the College of Arts and Sciences, but a greater benefit in work across the professions and engagement with the community.

The “greater university” in the 21st century must also adapt to a new geography at a range of scales—regional, national and international. As the costs of travel by air increase—both in dollars and in carbon emissions—we will do more of its global business with the aid of telecommunications technology. At the regional scale, UB will fulfill the wish that the university be at the center of the community—as prevalent in the centuries over campus site selection in the 1960s—by forming a kind of longitudinal urban core. In this plan, the “spine” will no longer be the array of buildings on North Campus; it will be the geographic form that UB takes at the center of Buffalo and its region. The university will form a true corridor from downtown to city line to suburban center, the trip from downtown to South Campus to North Campus facilitated by public transit and reinforced by telecommunications technology. Geographically, as well as economically and culturally, UB will be at the heart of the city.
A MOMENT OF OPPORTUNITY

There is an extraordinary photograph of a football game played not so long ago. The University at Buffalo Bulls were matched with the Ball State University Cardinals in this 2008 championship game of the Mid-American Conference. Near the end of the first half, the Bulls were down and looking ready to give up another score. In the “red zone” the Cardinals quarterback ran around left end. Just as he was about to dive into the end zone a defender hit him hard. The ball popped up and another blue-shirt snatched it and ran 92 yards for the score. UB went on to win the game in a runaway.

But it is the photograph that haunts. It shows the ball carrier and tacklers falling to the turf and the ball suspended there in mid-air, perfectly still. One other player is standing above them, and tacklers falling to the turf and the ball suspended there in mid-air, perfectly still. One other player is standing above them, and tacklers falling to the turf. The fumble, caused by Justin Winter (on the ground) and returned by Mike Newton (facing the camera) was the turning point for the Bulls in the 2008 MAC Championship Game.

This is such a moment for UB as an academic institution, as a great public research university. Although a moment in a football game is often just a fraction of a second, in the life of a university a moment might be a span of years, maybe a whole decade. A moment for a university might be a time when opportunities are seen clearly and the right moves are made to take advantage of them. Perhaps only later will we be able to see such a moment as a pivot point in the history of the institution, a point from which everything afterward is different from what went before.

UB has always aspired to be a truly great university. From even before its birth, the people that gave it life imagined it would be, not a good university, nor an adequate university, but an eminent one. Throughout its history, UB has been good. It has thrived. It has served its city and the world. Its graduates have been the bedrock of local society and the nation at large. It has grown. And its achievements have accumulated—discoveries, inventions, knowledge, art. But it has never quite been what we—citizens of Buffalo and its greater region over nearly 16 decades—have always hoped it would become. Yet, whether we realize it or not, the opportunity to finally and fully achieve the vast potential of UB hangs in the air before us, much like that pigskin in the photograph. All we need to do is reach out and grab it. And run.

REFERENCES

2. Ibid. 24
3. Ibid. 25
4. University of Buffalo. 2003. 23
5. University at Buffalo. 1929. 10
7. For a detailed description of the achievements of the early UB medical faculty, see Park, Julian’s Park’s History. See also Lang, E.I. H. Department of Medicine, Pharmacy, Dentistry, Pediatrics, Buffalo UB Council, and University of Buffalo, 1911. A Brief History, 1846–1911. Buffalo: Photo copy, 19 pp.
10. There are a variety of ways to calculate the relative worth of money over time. One of them is in terms of Gross Domestic Product Per Capita, a calculation which produces a value of more than $41 million. Using the Consumer Price Index, Mrs. Knox’s gift would be worth at least $11 million today. Either way, it was a generous donation. See www.measuringworth.com.
12. For a comprehensive assessment of the status of UB as an institution of higher learning at the beginning of the Simpson presidency, see: University at Buffalo. 2003. University of Buffalo Middle States Self-Study; Buffalo UB. 177 pp. plus appendices.
15. UB. 2003. Middle States Self-Study.
16. Ibid.
17. Ibid.
19. Ibid.
20. Ibid.
23. Greiner and Headrick write: “Till the end of his presidency in 1966, Farnus held to his preference to expand at the Main Bailey site.” P. 48
25. Ibid. pp. 64–74.
26. Ibid. p. 145.
27. Ibid. pp. 87–96.
29. Ibid. p. 87.
31. A comprehensive assessment of the status of UB as an institution of higher learning at the beginning of the Simpson presidency, see: University at Buffalo. 2003. University of Buffalo Middle States Self-Study; Buffalo UB. 177 pp. plus appendices.
32. For a detailed description of the achievements of the early UB medical faculty, see Park, Julian’s Park’s History. See also Lang, E.I. H. Department of Medicine, Pharmacy, Dentistry, Pediatrics, Buffalo UB Council, and University of Buffalo, 1911. A Brief History, 1846–1911. Buffalo: Photo copy, 19 pp.
To fulfill UB 2020, the strategic plan for the University at Buffalo, the Comprehensive Physical Plan follows six guiding principles:

1. Promote academic excellence, the interdisciplinary exchange of ideas, and the development of vital intellectual communities.

2. Realize a united and accessible university campus with three strong, distinctive, and seamlessly interconnected centers designed to facilitate social interaction.

3. Reflect the university’s responsibility to the community that founded it by respecting and being shaped, in part, by public plans and policies.

4. Provide the basis for long-range capital programming and the prudent management of university resources.

5. Establish UB as a leader in environmental stewardship and sustainable development and design.

6. Create great and memorable places contributing to a high quality of campus life by fostering design excellence in campus architecture, landscape architecture, and interiors.

Following from principles one, two, and six, this chapter assesses our needs. Following principles three, four, and five, this chapter assesses our responsibilities. The rest of the chapter explains how these assessments have led us to a three-part strategy for our campuses – growth, migration, and transformation – that is woven through the rest of this document.
UB’s North Campus today is home to the College of Arts and Sciences, the Graduate School of Education, UB Law School, the School of Engineering and Applied Sciences, the School of Management, the School of Social Work, and the School of Pharmacy and Pharmaceutical Sciences. These programs support both undergraduate and graduate study. North Campus also hosts all of UB’s on-campus facilities for intercollegiate athletics, the majority of our administration and support facilities, and all five of the townhouse “villages” containing UB’s apartment-style housing options for students.

Between Lee Road and Lake LaSalle are the University Bookstores and UB Commons, the latter an array of restaurants and offices. These properties were developed by a private interest based on research activities at UB, is Research Park, which supports the creation of new technology-based businesses founded on research activities at UB, is generally perceived to be “off campus,” but under the plan it is counted as part of North Campus because we intend to make better connections between it and our academic research facilities.

UB’s South Campus today is home to four of UB’s five health sciences schools: the School of Dental Medicine, the School of Medicine and Biomedical Sciences, the School of Nursing, and the School of Public Health and Health Professions. The School of Pharmacy and Pharmaceutical Sciences will move from North Campus into newly renovated facilities on South Campus in 2012. These schools have ties with the Veterans Administration Hospital adjacent to South Campus; the Erie County Medical Center a few miles away on Grider Street; and the five hospitals and clinics of Kaleida Health (Buffalo General, DeGraff Memorial, Millard Fillmore Gates Circle, Millard Fillmore Suburban, and Women and Children’s Hospital of Buffalo).

They also have very important relationships with Hauptman-Woodward Medical Research Institute and Roswell Park Cancer Institute, both of which host UB doctoral programs, and with other member institutions of the Buffalo Niagara Medical Campus (BNMC). Several existing UB facilities, such as the New York State Center for Excellence in Bioinformatics and Life Sciences, the Research Institute on Addictions, and the Ira D. Ross Eye Institute, as well as a new building currently under development with Kaleida to house its Global Vascular Institute, UB’s Clinical and Translational Research Center, and a UB Biosciences Incubator, are the seeds for a greater UB downtown presence on the medical campus that will more fully integrate our health sciences schools with our partners in the BNMC.

UB’s Downtown Campus today comprises facilities in and around the Buffalo Niagara Medical Campus. The BNMC is a consortium of nine health care related institutions, including UB, Kaleida Health, and Roswell Park Cancer Institute, all of which occupy a 100-acre district at the northern edge of downtown Buffalo. These institutions are working together to position the BNMC as a peer to the University of Michigan, University of Pittsburgh, and other similar internationally renowned centers of medical care, teaching, training, and research.

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Downtown is also becoming a hub for the university’s civic engagement programs, with the 2007 acquisition of the former M. Wills factory building, now the UB Downtown Gateway, and the planned construction of a new Educational Opportunity Center (EOC) next door. The Jacobs Executive Development Center, occupied by an arm of UB’s Division of Development and Alumni Relations, rounds out UB’s current Downtown Campus.

UB’s other properties not located on our campuses include the president’s house, library annex space, the UB Boat House on Tonawanda Creek, leased space at several health care institutions affiliated with our health sciences schools, and the existing EOC spaces soon to be relocated to Downtown Campus.

The Starting Point: UB’s Campuses Today

The image shows a map of UB’s campuses with North Campus, South Campus, and Downtown Campus labeled. The map is accompanied by a table listing the acreage, number of buildings, gross square feet (GSF), and population for each campus:

<table>
<thead>
<tr>
<th>Campus</th>
<th>Acreage</th>
<th>Buildings</th>
<th>GSF**</th>
<th>Population</th>
</tr>
</thead>
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<tr>
<td>North</td>
<td>1,192</td>
<td>146</td>
<td>6.6 million</td>
<td>28,000</td>
</tr>
<tr>
<td>South</td>
<td>154</td>
<td>53</td>
<td>3.0 million</td>
<td>7,600</td>
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<tr>
<td>Downtown</td>
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<td>500</td>
<td>36,100</td>
</tr>
<tr>
<td>Total</td>
<td>1,346</td>
<td>250**</td>
<td>10.2 million</td>
<td>36,100</td>
</tr>
</tbody>
</table>

*Gross square feet, or GSF, is a measurement that includes not just the inhabited vertical penetrations, and the thickness of walls.

**Includes UB’s downtown campus buildings.
GROWTH
UB is big. The university’s daytime population is roughly two-thirds that of downtown Buffalo. Our campuses accommodate more than triple the floor area and five times the population of the university of the 1920s. They are similar in size to the University of Iowa, the University of Massachusetts at Amherst, and the State University of New York at Stony Brook. But our facilities do not match the needs of a modern public research university. While Stony Brook enrolls several thousand fewer students than UB, it has in excess of 1 million square feet of space than we do. Iowa and Massachusetts, likewise, have similar populations but more square feet in facilities. Our lower space-to-student ratio is due in part to the efficiency with which we use our spaces. But it is also due to a shortage of the kinds of spaces that would make UB more competitive.

On the academic side, these include more flexible and more technology-intensive classrooms, labs, and informal spaces for research, studying, and learning; incubator and business development space; facilities for executive education programs; and spaces specifically designed to enhance interdisciplinary collaboration. On the campus life side, they include a broader range of attractions, housing options, top-notch dining venues, state-of-the-art recreation facilities, and welcoming public spaces inside and out. While our campuses have many of these facilities, what is missing is the capacity, quality, and diversity crucial to enhancing UB’s competitive ability to attract and retain students, faculty, and staff.

We are also missing out on opportunities to partner with others on facilities that would make our campuses more dynamic and more connected to the world at large—facilities that have benefited many of our peer institutions. A university club would provide new settings for student, faculty, and staff interaction, keep alumni connected to campus life, and showcase our accomplishments to donors and visitors. A hotel and conference center would attract academic and other events, support the university-level education. And our academic spaces lack the kind of leadership that would make it good to have all five of our health sciences schools in one place.

In short, our campuses need and can accommodate growth—to improve our space-to-student ratio, add competitive facilities, and accommodate an increase in student, faculty, and staff population.

Migration
UB is one university on three campuses. From the start, these collaborating on the creation of this plan acknowledged the potential advantages of having all of the university’s programs in one location. The synergies generated among arts and sciences and professional programs, between undergraduate and graduate education, and from sheer concentration of intellectual endeavor, would be extraordinary. The efficiencies would be immense.

But UB’s history doesn’t give us that option. We have a clear responsibility to continued stewardship of our substantial and necessary new facilities, although some demolition will be required on South Campus. And we will have the opportunity to collaborate with our partners in the BNMC to acquire property and develop some of the new facilities we require at our Downtown Campus. We will make judicious choices about the renovation, adaptive re-use and, in some cases, demolition of buildings. In sum, our campuses need and can accommodate growth—to improve our space-to-student ratio, add competitive facilities, and accommodate an increase in student, faculty, and staff population.

In practice, the populations they will serve, and the urban physical, economic, and social context for their work is not unprecedented for major public universities to have multiple campuses. Michigan, West Virginia, and Stony Brook, among others, all have more than one campus. The key is to make each campus as good as it can be and to make sure the connections among them are strong.

For too long, UB has experienced life on multiple campuses primarily as a struggle. While this was most true during UB’s “great march” to North Campus, it is still true that multiple campuses create inefficiencies in the construction, assignment, and servicing of campus spaces, limit potential opportunities for collaboration, and cost us productive time spent in inter-campus travel. However, we have never had a fully coordinated vision for uniting one university across multiple campuses. We have yet to fully connect our campuses to each other, or to the neighborhoods around them. And we have never taken full advantage of the chief benefit of multiple campuses: more choices in working, learning, and living arrangements.

We know that many of our current students, faculty, and staff would live downtown if they were provided with easier commutes to North Campus and their own campus of life and student support services. We know that we could broaden our recruitment pool for the best new students, faculty, and staff if we had a broader variety of campus experiences to offer.

And we know that while we must offer a consistent quality of life across all of our campuses, we will benefit the most from giving a distinctive identity to each— an identity based on a specific interdisciplinary focus and a unique sense of place.

Migration carries inherent risks when funding is uncertain and programmatic needs are dynamic—which is to say, it always carries risks. If we pursue migration on the scale proposed here, we must plan its enabling projects to ensure that each campus remains whole and is constantly improving—both physically and programmatically—at every step along the way. We must phase migration so that an unanticipated change in direction or pace of the process will still leave us better off than we were before.

In short, our campuses need and can accommodate migration – to create a world-class medical research and health care center; give a distinct academic and physical identity to each campus, and expand choices for the UB community.

Transformation
UB is the steward of extensive physical assets, all of which require ongoing maintenance. Although all of the significant buildings on North Campus were constructed after 1972, those built during the first three decades of campus construction are coming due for major reinvestment. All of the buildings on South Campus but two were built before 1966, with many dating from the 1920s and 1930s, and several from the 19th century. These, too, require significant reinvestment.

But simply repairing what we have will not be enough to achieve the vision of UB 2020. Many of our facilities for research, teaching, and learning need updating to support an increasingly interactive, technology-intensive, learner-centered approach to university-level education. And our academic spaces lack the kind of leadership that would make it good to have all five of our health sciences schools in one place. But UB's history doesn’t give us that option. We have a clear responsibility to continued stewardship of our substantial and necessary new facilities, although some demolition will be required on South Campus. And we will have the opportunity to collaborate with our partners in the BNMC to acquire property and develop some of the new facilities we require at our Downtown Campus. We will make judicious choices about the renovation, adaptive re-use and, in some cases, demolition of buildings. In sum, our campuses need and can accommodate growth— to improve our space-to-student ratio, add competitive facilities, and accommodate an increase in student, faculty, and staff population.
ASSESSING OUR RESPONSIBILITIES

UB’s first responsibility is clearly described in Chapter 1: to be the best we can be. But we also have responsibilities to others—to those who share their financial resources with us, to the community and region in which we make our home, to the ecosphere and those with whom we share it, and indeed all the inhabitants of the planet. We have a responsibility to act as citizens in a community—regionally, nationally, and globally—and as stewards of all the resources under our care.

Both the plan and UB 2020, the institutional strategic plan behind it, are guided by the overarching mandate of “sustainability”—understood not just in terms of care for the natural environment, but as a matter of generating economic prosperity and ensuring social equity as we protect the ecosphere. The plan looks toward the “triple bottom line” in which ecological and social accounts are as important as economic ones, and it moves forward on all three fronts simultaneously.

SOCIAL STEWARDSHIP

Ordinarily, citizenship is discussed in terms of the rights and obligations of individuals within a polity. A broader understanding of the concept, and of UB, allows us to recognize the university as an institutional citizen, responsible for the stewardship of our relationships with our neighbors and our mutual obligations to society. This includes our internal constituencies, our alumni and supporters, and the community at large, as represented by the various agencies of government, local, regional, and beyond, as well as by community organizations and corporate business entities.

Involve input. University leadership and the authors of this plan have consulted widely, systematically, and persistently with a broad array of partners, stakeholders, and interested parties, explaining the intent of the plan, listening to their concerns, and speaking about the role UB can play in city and region—with their help. These consultations have involved faculty, staff, students, and alumni; neighborhood organizations, faith-based groups, and business associations; and elected officials, policymakers, and planners in local and regional government.

Coordinate with local and regional plans. UB staff and municipal and regional planning staff around our community have worked together—both before and during the development of the plan—within the framework of a shared understanding of what the Buffalo Niagara region requires to achieve a more sustainable and higher quality of life. Recent comprehensive plans developed for the City of Buffalo, the Town of Amherst, the County of Erie, the Greater Buffalo Niagara Regional Transportation Council (GBNRTC), and the Niagara Frontier Transportation Authority (NFTA) share with UB’s Comprehensive Physical Plan a common outlook and direction with regard to the challenges of economic development, transportation, energy, land use, and sustainable development.

Strengthen relationships with local and regional governments and agencies. UB has strong working relationships with the City of Buffalo, the Town of Amherst, and the County of Erie, including official memoranda of understanding that outline shared interests, mutual obligations, and common approaches to policy making and problem solving between municipality and university. We have also worked closely with the GBNRTC and NFTA on issues of shared interest.

Collaborate with our neighbors. At each campus, UB and our surrounding neighbors are working together toward a shared vision of a healthy and vibrant community for all. The plan creates more university facilities on each campus open to community use, improves pedestrian and bike connections, identifies mutually beneficial development opportunities, and addresses mutual concerns such as traffic and parking, access to transportation, and safety and security. We will continue to engage in this work on a project-by-project basis.

Channel our economic impact. A recent study by The Regional Institute, a UB research center, estimated that the total annual economic impact of the university, including direct purchases of goods and services, salaries paid to employees, funds invested in research activities, and spending by students, plus the multiplier effect of those dollars as they reverberate through the regional economy, is now about $1.7 billion. Implementation of this plan is projected to increase that figure to about $3.6 billion.

UB is taking specific actions to ensure that the impact of our growth is more equitably enjoyed. These include collaborative neighborhood redevelopment efforts with citizens in University Heights, the Fruit Belt, and Allentown; the development of programs in association with organized labor to ensure broad participation in the construction and operation of new UB facilities; and the expansion of core programs such as UB’s Educational Opportunity Center that help prepare educationally disadvantaged individuals for jobs or further education.
MAXIMIZE THE EFFICIENCY OF EXISTING INFRASTRUCTURE

Over the past 25 years we have saved more than $100 million on heating and cooling our buildings, lighting our rooms, running our computers, and operating our vehicle fleets. An overhaul of our telecommunications infrastructure reduced more than six dozen different UB telephone systems to just two – saving more than $1 million a year. The plan will advance this work.

REFORM OPERATIONAL POLICIES, PROCEDURES, AND SERVICES

A wide array of operational reforms have been undertaken over the past five years, including restructuring of UB information technology operations and human resources programs and procedures. Other projects are under way to make strategic budgeting, provision of student services, university Web site content, and services to university-sponsored researchers all more effective and efficient.

ASSESS AND MONITOR THE CONDITION OF FACILITIES

As part of the plan, the university commissioned the first comprehensive audit of all university facilities and their anticipated maintenance and reinvestment costs. This will be updated every five years so that decisions about investments in critical maintenance, or about the potential renovation, adaptive reuse, disposal, or demolition of buildings, can be made on the basis of complete and accurate information about the long-term costs and benefits of such actions.

PREVENT EMBEDDED VALUE

All of the buildings standing on our campuses represent durable value in terms of the effort, material, and energy that went into their design, construction, and ongoing operation and maintenance. The plan’s emphasis on historic preservation and adaptive re-use works to preserve this value, lower construction costs, and reduce demolition waste.

FACILITATE MORE EFFECTIVE MANAGEMENT OF SPACE

In order to get the most benefit from the cost of constructing and maintaining our facilities, our spaces will evolve to become more flexible to accommodate multiple uses, and more adaptive to accommodate changing needs. Likewise, our system of designing, assigning, and managing space, led by an improved capital budget and planning process, will do a better job of maximizing the utilization of space across the university, and finding new uses for underutilized or poorly utilized spaces.

RATIONALIZE CAPITAL BUDGET AND PLANNING

The plan delineates a clear set of principles for planning, budgeting, and implementing capital facilities development and outlines a definitive process for the development and review of capital budgets. This system is designed to focus investments on institutional priorities, refine program information and design, provide appropriate financing for projects, and monitor them to ensure that construction is completed on time and within budgets.

PURSUE BROADER OPTIONS FOR FINANCING

Providing good financial stewardship must combine prudence with creativity. It is not prudent, of course, for any organization to spend beyond its means. Yet neither is it prudent to delay or defer crucial capital investments when they further the central mission of the university and we are otherwise ready to grow. Without a broader array of financial tools UB will not be able to move as quickly as it should to implement the Comprehensive Physical Plan and realize the benefits of the UB 2020 strategy.

ENVIRONMENTAL STEWARDSHIP

Growth in support of excellence is at the heart of the institutional strategy behind this plan. In the past this would have meant consuming more energy and producing more waste and pollution as we added more buildings, more people, and more activity. Today, however, we embrace a responsibility to grow in ways that are cleaner, more efficient, and more sustainable.

REDUCE UB’S NET GREENHOUSE GAS EMISSIONS TO ZERO

To fulfill President John B. Simpson’s endorsement of the American College and University Presidents Climate Commitment (ACUPCC), UB has developed – in parallel with the Comprehensive Physical Plan and as a companion to it – a Climate Action Plan (CAP) that will guide UB’s path to climate neutrality. Many of the action items required to implement the CAP are also addressed in the Comprehensive Physical Plan.

DESIGN FOR BUILDING ENERGY EFFICIENCY

Our buildings are our biggest consumers of energy – through heating, cooling, ventilation, and lighting. The CAP and the plan’s design guidelines outline specific strategies for individual buildings, while the plan itself calls for the demotion of energy-intensive buildings that have outlived their usefulness, and sites new buildings to maximize the efficiency of existing energy delivery systems and facilitate cogeneration.

SUPPORT ALTERNATIVE MODES OF TRANSPORTATION

Thousands of cars are driven to and parked on our campuses each day, polluting our air, adding to local traffic, and filling valuable space with parking lots and roadways. To minimize these impacts and enhance quality of life for both the UB community and our neighbors, the plan contains a set of recommendations that will promote walking, biking, carpooling, and greater use of transit services including bus and rail.

MANAGE STORMWATER ON OUR CAMPUSES

The plan begins to address the need now recognized in emerging federal regulations – to retain rain and snow on our campus right where it lands, rather than shedding it to municipal and regional stormwater management systems. Reducing the burden on these systems will help prevent erosion, siltation, and the release of raw sewage into natural water bodies during heavy storms. Many stormwater strategies will simultaneously reduce the “heat island” effect, and attendant energy costs, caused by roads, parking lots, and rooftops that absorb solar energy.

RESTORE REGIONAL Ecosystems

Our campuses include some of the largest open spaces in the region. Naturalizing these spaces will expand and connect self-sustaining habitats for local flora and fauna – while reducing lawn areas that require high-energy maintenance, filtering and absorbing stormwater, capturing more carbon dioxide from the atmosphere, and providing a wider variety of recreational opportunities for university and community members alike.

ATTRACT GROWTH TO THE BUFFALO REGION

In comparison to current fast-growing suburban and rural places in Texas, California, Nevada, Arizona, and Colorado, the Buffalo Niagara region has plentiful water, we can grow our own food, and we are relatively insulated from many of the most likely effects of global climate change. We have hydropower and growing wind and solar power resources, roads and public transit with capacity to spare, vacant but solidly built housing in diverse communities, and a university whose vision and strategy for growth align with those of the city and region. It is now projected that the United States will grow from the current 300 million people to 450 million by the middle of this century. From an environmental perspective, it makes sense to attract as much of that growth as possible to our region.

SHARE WHAT WE LEARN

Both our mission as a public research university and our endorsement of the ACUPCC charge us to employ what we learn about environmental stewardship in service to the larger community. An extensive community outreach and education program, in combination with an ongoing effort to integrate research on environmental stewardship into UB’s academic programs, will help promote the kind of collaboration and cultural and behavioral changes required to address the challenges of environmentally sustainable growth.
ASSESSING OUR OPTIONS

UB operates in an environment of uncertainty. External events and circumstances beyond the direct control of the university could make it difficult to carry out parts of the plan. While we lead the plan with a most-favored scenario of growth, migration, and transformation, it is our responsibility to anticipate and prepare for other outcomes.

A number of alternative scenarios were considered and developed during the early phases of planning. The build-out of each scenario—measured in gross square feet (GSF) of new construction—was projected to the year 2030, a reasonable time period for current planning. To enable direct comparisons, the support and campus life facilities on each campus were assumed to grow in direct proportion to the growth of the schools and academic programs there.

One scenario carried the working title of “modest growth.” It was assumed, contrary to the overall UB 2020 strategy, that no major growth in faculty or student enrollment would be possible, but that our slow upward trend in enrollment would continue. In the near future, this scenario would include new construction of 170,000 GSF and renovations of 640,000 GSF in existing buildings, as reflected in the 2008-2013 UB capital plan with SUNY. An estimate of UB’s growth beyond this period, to the year 2030, was based on UB’s growth from 1990 to 2008.

Under this scenario, UB would still strive for a world-class academic excellence. But without this strategic breadth and depth of a larger and more diverse faculty, we would not achieve our full potential. There would still be measures we could take to make better campuses and to connect them more efficiently—we would still undergo some transformation—but without the boost in revenues from significant growth in student enrollment, and without the boost in research funding from significant growth in our faculty, such transformation would be of a minimal scope compared to that envisioned by UB 2020. Due to its “status quo” approach, this scenario was called the “No Action Alternative” in the Generic Environmental Impact Statement (GEIS) for the plan.

A second scenario was referred to as “growth in place.” It assumed the full increase in faculty and student enrollment called for by UB 2020, but each school would remain and grow on its current campus (with the exception of the relocation of the School of Pharmacy and Pharmaceutical Sciences, already in progress). By the year 2030, North Campus would add 4.4 million GSF of buildings for expansion of its programs. South Campus would add 1.0 million GSF. Six hundred thousand GSF would be constructed downtown to expand the modest array of programs and facilities already located there.

Under this scenario, UB would have growth and transformation, but without the significant advantages of migration. Our health sciences schools would forego the opportunity to draw additional strength from co-locating with Kaleida Health, Roswell Park Cancer Institute, and other BNMC partners downtown. They, in turn, would miss the chance to build UB’s assets and create a world-class medical research and health care center—a loss for the entire region. Buffalo would lose the potential for much needed commercial and residential revitalization in the Fruit Belt and Allentown neighborhoods. And without enough programs to support a full-fledged Downtown Campus, UB would pass up the possibility of an attractive and dynamic university environment for living and learning downtown. In sum, we would miss the chance to maximize our potential to achieve academic excellence and to create value for university, community, and society.

The third scenario was given the unwieldy name “redistributed growth.” It assumed both the full increase in faculty and student enrollment called for by UB 2020 and the relocation of academic programs, resulting in a new and academically compelling rationale for each of the three campuses: a world-class academic health center on the Buffalo Niagara Medical Campus; a new urban-oriented center of professional education and collaboration on South Campus, supported by a new professional education facility; and, a stronger, larger, and much more livable university core on North Campus anchored by the College of Arts and Sciences and the schools of engineering and management. The advantages of this scenario—the synergies of growth, migration, and transformation—were so great that it became the “Preferred Alternative” of the GEIS, and the basis for the Comprehensive Physical Plan.

As noted above, the plan must remain flexible, and no scenario is guaranteed. Regardless of how much UB grows, and even if it must follow one of the sub-optimal scenarios described above, UB must transform its campuses. There are a number of strategies included in the plan—landscape designs, roadway improvements, transportation proposals, the identification of building sites and open spaces, parking arrangements, and more—that can still help us move toward our goal of excellence regardless of which scenario is enacted. They are responses to the needs of each campus as a unique place in its own right, so they will work, with varying degrees of success, independent of what program is located there.

There is more about these strategies for transformation in Chapter 3. Likewise, resorting to one of the sub-optimal alternative scenarios would have a significant impact on implementation and phasing for the plan. These possibilities are addressed in Chapter 7.

It must be remembered, however, that growth, migration, and transformation together create the most comprehensive path to achieve the excellence to which we aspire. Well-phased growth and migration will make it possible to transform our campuses without resort to seizing space in temporary annex structures or off-campus facilities. Likewise, investments in buildings that are due for infrastructural upgrades can be planned to coincide with renovations required to accommodate a change in academic occupancy, yielding significant savings. But, most of all, the reorganization of academic programs around productive new partnerships will allow the academic mission of the university to flourish.
UB’s Comprehensive Physical Plan: Growth, Migration and Transformation

The Comprehensive Physical Plan will guide development of a single university located on three well-connected campuses, each organized by a compelling academic concept, each one responding to powerful practical realities arising from the history of the institution.

Fulfillment of the plan will make it possible to accommodate the growing faculty and student body UB needs to achieve the excellence we demand. Likewise, the plan will guide the work of making our campuses much better, more livable places, capable of attracting and retaining the caliber of intellectual talent we require.

Simply put, UB’s physical space must be bigger, our places must be better, and our campuses must be more sustainable to achieve the excellence we want. They must also be organized in ways that make academic sense. Campus growth, migration, and transformation must move forward together.

DOWNTOWN CAMPUS

The relocation of UB’s five health sciences schools to Downtown Campus will reinforce an emerging world-class medical research and health care center in downtown Buffalo by bringing teaching – in the clinic and in the classroom – together with research and clinical programs already established on the Buffalo Niagara Medical Campus.

It will also reinforce an emerging leader in health care delivery – Great Lakes Health, a not-for-profit, community-based corporation created in 2009 to serve patients better by combining the resources of the five Kaleida Health hospitals, UB’s research capabilities, the trauma expertise of Erie County Medical Center, and the home care experience of the Visiting Nurses Association of Western New York. The establishment of Great Lakes Health was the impetus for Kaleida and UB to jointly develop the Global Vascular Institute, Clinical and Translational Research Center, and Biosciences Incubator.

Locating UB’s professional schools together will give a new purpose to South Campus focused on mining the interdisciplinary potential of four professions with an orientation to civic engagement with urban populations. This new role will give the campus a stronger identity for the community as well as for members of the university. A new professional education center will also be created to support the Executive School of the Management and continuing education programs from all of the professional schools.

There are other Clusters: category includes spaces that are not on one of UB’s three defined campuses, such as space utilized within local hospitals and office buildings. In the future, these locations will be assigned in one of UB’s three campuses.

In the health sciences today, teacher, researcher, and practitioners are typically one and the same person. Accordingly, they want their offices, classrooms, laboratories, and clinics to be close and easily accessible to each other. Students want to be where faculty practitioners and researchers spend their time. Faculty, meanwhile, want to be close to their colleagues.

The co-location of UB’s Kaleida Health, Roswell Park Cancer Institute, Hauptman-Woodward Medical Research Institute and others will make this possible, providing a fertile environment for the cross-disciplinary collaboration that is fundamental to academic excellence at UB. The aim of the plan is to connect these entities as closely as possible and to fully integrate teaching, research, and clinical care on the campus.

Ultimately, the relocation of UB’s School of Medicine and Biomedical Sciences and School of Nursing (in the near term), School of Public Health and Health Professions (in the middle term), and School of Dental Medicine and School of Pharmacy and Pharmaceutical Sciences (in the longer term) to Downtown Campus will bring approximately 14,000 additional students, faculty, and staff to work and study downtown, accommodated by a sevenfold increase in space. Included in this will be many of UB’s local and regional outreach and community engagement initiatives, including the UB Downtown Gateway and the Educational Opportunity Center, all located at the south end of the campus near the center of downtown Buffalo.

The build-out for UB downtown will include incubator and business development space as well as space for research, instruction, clinical care, administration, and conferences, and a full range of campus life facilities for dining, recreation, child care, student services, and transportation. The details of this construction will emerge as specific sites for development are identified and acquired. But wherever it takes place, the plan will provide for strong connections among clinical, research, and instructional spaces; among UB and its BNMC partners; and with the adjacent neighborhoods and the rest of downtown. In short, it will work to make UB’s Downtown Campus a distinct and internally cohesive but fully integral part of the BNMC, and it will work to make the medical campus a true neighborhood.

Making Downtown Campus will involve massive growth and a major migration, contribute to a significant transformation of the medical campus, and boost the vitality of downtown Buffalo.

SOUTH CAMPUS

The departure of the health sciences schools will make room for the reinvention of South Campus as a new interdisciplinary professional education campus. Closer to the city and close enough to one another to foster greater collaboration, UB’s schools of law, education, and social work will join the School of Architecture and Planning in this new arrangement.

In the future, three locations will be assigned in one of UB’s three campuses.

Population Growth Projections

<table>
<thead>
<tr>
<th>Location</th>
<th>TODAY</th>
<th>BUILD-OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTH CAMPUS</td>
<td>4,000</td>
<td>1,741</td>
</tr>
<tr>
<td>SOUTH CAMPUS</td>
<td>1,741</td>
<td>225</td>
</tr>
<tr>
<td>UNIVERSITY TOTAL</td>
<td>5,742</td>
<td>225</td>
</tr>
</tbody>
</table>

The “Other Locations” category includes spaces that are not on one of UB’s three defined campuses, such as space utilized within local hospitals and office buildings. In the future, these locations will be assigned in one of UB’s three campuses.
Although four schools will leave and three new ones will ar-
rive, the overall population of South Campus will ultimately be about the same as it is today. There will likely be an interim period - while the dental and pharmacy schools wait for new facilities downtown in which the South Campus population is higher than it is today. Some undergraduates will continue to study and live on South Campus, but the dominant population will be graduate students, allowing a shift in the provision of campus life and support services and a likely improvement in the neighborhood impact of the campus.

Reinventing South Campus will include little growth, but will involve a significant migration and a comprehensive but histori-
cally and environmentally sensitive transformation.

NORTH CAMPUS

While three professional schools will depart North Campus, the academic center of gravity for the campus and the university as a whole - the College of Arts and Sciences - will remain and grow where it is today, along with UB’s schools of management and engineering. Thus, the purpose and identity of North Cam-
pus will remain much the same as today, even as South Campus is reorganized and a new UB presence is established downtown.

There will be, nevertheless, dramatic changes on North Cam-
pus. In the short term, many departments in arts and sciences will find room to grow in the spaces vacated by the schools of pharmacy, law, education, and social work. But much more important, a related set of projects will address the central problem of North Campus - its physical character and its isola-
tion from surrounding neighborhoods. Improvements to public spaces indoors and out will make this campus easier to reach, more welcoming, warmer, more sociable, and overall, more livable.

The organization of the campus by academic precinct - natural sciences, social sciences, humanities and the arts, engineer-
ing - will be reinforced and augmented by a series of multi-pur-
purpose indoor spaces equipped to support teaching and learning and co-located with dining to make each disciplinary cluster more sociable. Outdoors, there will be new roadway, bike, and pedestrian connections to surrounding Allentown neighbor-
hoods, a revitalized Lake LaSalle, and a naturalized campus perimeter housing a network of new recreational spaces. The plan also provides for a series of major university-wide facili-
ties on North Campus including a new hotel and conference center, a recreation and wellness center, and a university club incorporating faculty and alumni functions - all to be located on a new residential and retail "Main Street" overlooking the Lake LaSalle water front.

The plan for North Campus involves some growth, especially in university-wide facilities and housing; a modest out-migration of schools and academic programs to South Campus; and a significant transformation of the campus landscape, inside and out.

For planning, budgeting, and organizational purposes, the plan divides campus spaces into three general categories: Academic and research, administration and support, and campus life.

THREE CAMPUSES, ONE UNIVERSITY

A MORE ROUNDED PROGRAM

For planning, budgeting, and organizational purposes, the plan divides campus spaces into three general categories:

- **Academic and research** refers to the space allocated to the schools, or decanal units, including classrooms, labora-
tories, faculty offices, and research space. It also encompasses space for other academic activities and the incubators and research centers that will provide opportunities for interdis-
ciplinary exploration and the commercialization of research discoveries. Growth in this program category is primary for UB; it is what drives growth in the other two categories.

- **Administration and support** program refers to space devoted to administrative offices, libraries, information technology, and other support services that are not housed within the decanal units. These include safety and security, transportation, mainte-
nance and operations, materials handling, and storage. In general, the plan increases this program category as needed to support the growth of academic and research activities.

- **Campus life** program refers to the facilities that round out the experience of living, learning, and working at UB, including housing, dining, on-campus retail, athletics, recreation, health and wellness, and informal social spaces, and the facilities which support these programs, such as child care. Increas-
ing campus life programming is not just a way to make each campus more lively and welcoming. It can help make UB more competitive in the recruitment and retention of students, fac-
sity, and staff. It can enhance campus-community connections and increase revenues by attracting new visitors to UB arts and cultural venues, dining and shops, and sporting events. And as each campus becomes "stickier" - as more vibrant, more mag-
netic campus life facilities entice students, faculty, and staff to spend more time on campus because they like it better - the opportunities for learning and collaboration will expand.

There is a fourth category of space that transcends these three categories: the public realm - the indoor and outdoor spaces between classrooms and labs, dorm rooms and dining halls, offices and arts venues. While the indoor component of this fourth category is incorporated into the planned build-out of academic and research, administration and support, and especially campus life spaces, our plans for an expanded and improved public realm go far beyond an increase in space. By strengthening the "glue" that holds all of our program spaces together, we will make each campus more functional, more sociable, and more beautiful.

**A STRONGER COMMUNITY**

UB’s drive for academic excellence will have a broad positive economic and social impact on Buffalo and the greater metro-
ropolitan region. Our growth will bring jobs, income, investment, and the knowledge that will drive the 21st century economy. As frequently noted, a $1.7 billion annual economic impact is expected to grow to $3.6 billion as a result of implementation of this plan. But UB will make our community stronger on the local scale of each campus, too.

The plan’s greatest impact will be on Downtown Campus. Proposed UB facilities will more than double the volume of space on the Buffalo Niagara Medical Campus. An additional 13,000-plus faculty, students, and staff will more than double the daytime population of the district. An estimated 10,000 good new jobs and an expanded research activities downtown will increase the total employment in the region by a measure equal to nearly one fifth of total employment in downtown Buffalo today.

The secondary effects of this growth in terms of housing demand, retail sales, restaurant traffic, transit riderhip, and neighborhood redevelopment in general will be substantial. So will the benefits to Allentown, the Fruit Belt, the Theater District, and all of downtown in the form of private commercial, residential, and retail reinvestment. With strong coordination among university, city, and neighborhood partners, UB can expect the medical campus to become a vibrant, walkable urban neighbor-
hood "of choice."

The impact of the plan on neighbors to UB’s other two cam-
puses will also be positive. The reinvention of South Campus will bring substantial reinvestment to a campus that, up until a few years ago, had seen very little change since the creation of North Campus. A campus with a graduate focus and an older student population is likely to help stabilize the distressed neighborhoods nearby. And a steady population will continue to support retail services in the area. Programs at Allen Hall and a new apartment/retail near the, reclamation of parking lots for open space, and the creation of a new professional education center will provide expanded opportunities for community-
university exchange.

Growth on North Campus will provide opportunities to make better connections between UB and our neighbors - on Sweet Home and Rhenish roads, to the south on Maple, to the east across North Forest, and to the north. Working with the Town of Amherst to align our respective master plans, UB can begin to ameliorate the sense of isolation from which North Campus suffers. The continuing development of North Campus as a regional venue for artistic, cultural, educational, and sporting events, and the creation of new mixed-use development such as a campus "Main Street," a retirement community, and a hotel and conference center, can give Amherst residents and others more reasons to visit the campus.

**A STRONGER UNIVERSITY**

If we can imagine the university in the future as inhabiting not three separate campuses, but one unified linear campus with three closely connected nodes, we can begin to understand the benefits of this arrangement for UB and its students as well as for the community at large.

UB will offer prospective students three distinct university experiences, three unique campus environments, and three compiling academic focuses from which to choose. Downtown Campus will offer health sciences education in a vibrant urban environment. South Campus will promise an urban-oriented professional education in a classic campus environment. And North Campus will offer a "big school" experience at the core of a great public research university.

Regardless of where they study, students will have the option of living at any of the three campuses, each with a variety of housing options and a complete set of campus life facilities, and each with its own distinctive adjoining neighborhoods. When three campuses are interconnected, not only by transportation, but also by technology and a stronger sense of interdisciplinary collaboration and applied research, "three campuses, one university" becomes real. It becomes a competitive advantage for UB.

More than that, this plan shows the way to fulfill the long-held aspirations of both community and university that UB reside at the heart of Buffalo. And that is good for both university and community.

For planning, budgeting, and organizational purposes, the plan divides campus spaces into three general categories: Academic and research, administration and support, and campus life. Net assignable square feet (NASF) is the sum of all areas within the interior walls of rooms assigned to, or available for assignment to, an occupant or use, excluding unassigned space and building walls, stair, elevator, and mechanical space. Gross square feet (GSF) measures the entirety of the building.
The Comprehensive Physical Plan envisions three distinctive campuses that constitute one great university at the heart of the city and region. Achieving this vision requires us to accomplish three key tasks: to make each campus a great place for teaching, learning, living, and visiting; to make strong connections so that three campuses can function as one, while each remains distinctive in purpose and identity; and to support the university’s fundamental mission – discovery.

The plan supports the process of discovering by improving the environment for research, teaching, and campus life. New mixed-use spaces will facilitate interdisciplinary collaboration and extend the reach of our research. Better classrooms and a network of informal teaching and learning spaces will support world-class teaching and stimulate learning everywhere on our campuses. More and better facilities for dining, housing, athletics, recreation and wellness, arts and culture, and student activities will enrich campus life.

The plan supports connecting within each campus, between campuses, and across campus boundaries through improved community linkages, transportation, and wayfinding. New programmatic and physical connections will bring us closer to our neighbors, while a cooperative approach to planning will encourage mutually beneficial development around our campuses. The needs of pedestrians, bicyclists, transit riders, and drivers will be balanced to broaden transportation options. New wayfinding and place naming systems will clarify campus navigation.

The plan supports placemaking by improving the public realm and landscape to enhance the unique character of each campus, building on the best of three different, but distinctly UB, campus environments. The key attributes of each campus will be protected, highlighted, and connected to enhance campus character. Outdoor areas will be reorganized, redesigned, and connected to make great public spaces. And a new ecological focus on plant selection, establishment, and maintenance will revitalize campus landscapes.

These strategies are what we need to do to make our campuses better under any circumstances. Regardless of how much we grow or where each academic unit is located, we must support discovering, connecting, and placemaking to advance our pursuit of academic excellence and a higher standing among major public research universities. This chapter details the principles, policies, and plans that will guide these strategies at the university-wide level.
The 21st-century library. UB libraries are continuously evolving to support changing modes of research, teaching, and learning. Although digital resources continue to supplant books, the library is still the place to go for help in finding information. With additional space for quiet study, collaborative learning, informal dining and gathering, student services, and tech support, UB’s Heart of the Campus initiative (see sidebar in this chapter) will reconfigure the Capen, Lockwood, and Abbott libraries into central nodes in the learning landscape. The following university-wide strategies build on these concepts to create opportunities for discovery in every corner of our three campuses.

**FACILITATE INTERDISCIPLINARY COLLABORATION.**

Work across the disciplines is the state-of-the-art in research, yielding results that cannot be achieved within a single field of inquiry. UB’s strategic strengths initiative organizes faculty excellence in eight focused areas of research for the interdisciplinary development of solutions to socially relevant problems. While this kind of collaboration occurs because faculty and students across academic units have interests in common and because they take the initiative, the setting can help. The Center for the Arts, for example, combines performance, practice, and gallery spaces for collaboration among musical, theatrical, and visual artists. UB’s New York State Center of Excellence in Bioinformatics and Life Sciences houses researchers from several UB health sciences departments and also hosts research collaborations with institutional partners and private biotech companies. The following actions will improve and expand the setting for interdisciplinary collaboration:

- **Reorganize the campuses around interdisciplinary work.** As outlined in Chapter 2, some of UB’s schools will migrate to create a broad but coherent interdisciplinary cluster at each campus – the health sciences schools on Downtown Campus; UB’s urban-oriented professional schools on South Campus; and the College of Arts and Sciences in conjunction with management and engineering on North Campus.

- **Develop shareable resources.** New simulation laboratories and other facilities on Downtown Campus will be shared by the health sciences schools and UB’s partner health care institutions on the Buffalo Niagara Medical Campus (BNMC). A new professional education center on South Campus will be shared by the executive and continuing education programs of the professional schools. A new humanities center on North Campus will be shared by departments in the social sciences and arts and humanities.

- **Design spaces for collaborative research.** As the state of the art evolves, so will UB’s research facilities. The newest School of Engineering and Applied Sciences (SEAS) building includes four different interdisciplinary laboratory types. Future UB research facilities will feature flexible layouts, technology, and infrastructure that can be tailored to host multiple modes of interdisciplinary inquiry, attract research funding, and support faculty recruitment. Two such facilities, the research left and arts left, are described in Chapter 4.

- **Create collaborative campus environments.** A university-wide learning landscape of informal spaces outside the laboratory and classroom, together with an improved and expanded public realm of comfortable, social indoor and outdoor places connecting campus precincts, will provide fertile ground for collaboration. New faculty hubs, central gathering places, and campus life facilities will further expand the collaborative possibilities for UB faculty and students.

**EXTEND THE REACH OF OUR RESEARCH AND KNOWLEDGE.**

A great university teaches its students how to analyze and assimilate the accumulated knowledge of the world. A great research university gives its faculty and students the freedom to work together, create new knowledge, and bring it to the world. This is how academic excellence at UB yields economic benefits for the region.

There are already facilities at UB to help connect faculty and students with industry. Several UB health sciences departments are involved in new initiatives and also host research collaborations with institutional partners and private biotech companies. The following actions will improve and extend the setting for interdisciplinary collaboration:

- **Provide a continuum of knowledge-to-market spaces.** From bench, to incubator, to accelerator: on North Campus, the plan proposes a new research left that will combine reconfigurable lab, incubator, and office spaces connected with dining and informal gathering in a single facility, located between Baird Research Park and the Natural Sciences Precinct at the west end of the Academic Spine. Downtown, the new Global Vascular Institute, UB Clinical and Translational Research Center, and UB Biosciences Incubator – scheduled for completion in 2011 – will combine clinical facilities operated by Kaesola Health with research labs operated by UB faculty, and incubator spaces occupied by start-up businesses based on research conducted at both institutions.

The plan also identifies space on all three UB campuses for the potential development of business and research parks within a short walk from labs, classrooms, and faculty offices. Such spaces include the property east of Millican Parkway on North Campus; existing buildings to be vacated by the health sciences schools and open sites near the southern end of South Campus; and infill sites on Downtown Campus. The plan also identifies opportunities for development on appropriately zoned land around each of the three campuses, which will bracket the local tax base.

- **Collaborate with partners on new facilities.** The Multidisciplinary Center for Earthquake Engineering Research (MCEER), in collaboration with Calasan, a long-time industrial research partner of UB, is developing a facility dedicated to the testing of full-scale infrastructure components and systems under multi-hazard conditions. Located at Calasan’s 700-acre Ashford Test Facility in Springville, this facility will accommodate large experimental research projects by UB faculty in a variety of infrastructure-related disciplines, including engineering, urban planning, architecture, and geography. The experimental data that will be acquired from this research will populate a national database, placing this facility in a position to become the nation’s flagship testing center in support of the 2009 American Recovery and Reinvestment Act.
Designing for Self-Directed Learning
A classroom designed for self-directed learning typically requires more space, but can also be adapted to multiple uses more easily. The examples below show the variation in size of rooms for 20 students, based on the intended pedagogy.

- Instructor-directed learning
- Self-directed learning

SUPPORT WORLD-CLASS TEACHING.
Teaching and learning at the university level have become increasingly interactive, technology-intensive, collaborative, and project-based to prepare students for the demands of the modern workplace. To recruit the best faculty and equip them to do their best work, universities must provide classrooms that can accommodate these changes, as well as facilities that support teacher development and collaboration.

- An inadequate variation in instructional spaces at UB. The reality is that there are 23,000 seats in 660 lecture halls, classrooms, labs, studies, and seminar rooms, and many of these spaces are below the optimal utilization level established by UB.

- An inadequate system for matching demand with supply. For example, faculty preferences for scheduling classes between 10 a.m. and 3 p.m. work against more efficient space utilization.

Supporting world-class teaching at UB requires more than just an adequate supply of instructional spaces with the right sizes, configurations, and amenities. It requires different approaches to designing, outfitting, maintaining, assigning, and managing these spaces, so that we get the most out of each. The following actions will ensure that both new and existing instructional spaces support world-class teaching:

- Shift toward learner-centered environments.
- Update UB’s design guidelines for instructional spaces. In particular, compared to existing spaces, new and renovated spaces should feature:
  - a higher level of technology as an integral part of classroom design, with support and interconnectivity for student-owned devices such as laptops.
  - adaptability to accommodate a wide variety of teaching and learning styles and changes in technologies, with multiple seating and viewing arrangements.
  - high environmental quality, aesthetic quality, and maintenance levels to convey an atmosphere of professionalism and support student and teacher performance;
  - integration with the broader learning landscape to provide social context for classrooms and learning context for adjacent social spaces.

More detail on instructional space design is provided in the plan’s design guidelines (see appendix), but one strategy in particular deserves further description here:

- Convert tablet-arm chairs and other fixed-seat configurations to moveable tables and chairs. Currently, fixed furnishings comprise the majority of UB’s classroom seats. Flexible furnishings provide adaptability, facilitate group work, allow students to spread out papers and laptops, and create a lower-density environment that allows teachers to freely move throughout the space during teaching and testing periods. While they require more space per student, flexible furnishings allow a space to be used for a wider variety of teaching methods, and can improve the utilization rate for the space.
The learning landscape we seek to create requires more than improvements to formal spaces for instruction. At UB today, students and faculty already make use of other kinds of spaces. But many of those spaces were not designed to support learning. Across our campuses, students are sitting on hallway floors outside classrooms and working on laptops with batteries running down because there are no chairs or outlets nearby. Faculty and staff are convening at bars and cafes off campus because there are few comfortable on-campus settings conducive to meeting, eating, and getting work done, and even fewer that are open after-hours. The plan proposes the creation of a network of informal spaces to support the various habits of UB’s student population with more learning options, to provide technology and other amenities to enhance both teaching and learning, and to reinvigorate the culture of discovery at UB. Together with the Heart of the Campus programs focused on the libraries (see the following pages), the following actions will transform each UB campus into a learning landscape of opportunities for discovery:

- **Support a range of teaching and learning activities and work styles.** A variety of new teaching and learning hubs will provide a distributed supplement to the centralized spaces and services of the libraries. Depending on its location and association with a particular academic discipline, each space will be a tailored hybrid of teaching, media, and tech support hubs (see top of facing page).

- **Provide a campus-wide system of convenient, comfortable places to study and relax before and after class.** A variety of new study spaces will provide students and faculty with the settings, furniture, and technology for unscheduled, on-the-spot collaborative work, individual work, meeting, and socializing. Among other amenities, study hubs, front porches, and learning corridors (see top of this page) will provide comfortable seating, basic wireless Internet service, and outlets for laptop recharging.

- **Support a range of faculty work arrangements.** New faculty hubs will provide faculty with places outside of their offices to socialize and collaborate. For faculty who work more on one campus, these hubs will provide space-saving “hotelling” – a variety of bookable workstations and offices, eliminating the need for faculty to have a dedicated office on each campus. Each faculty hub will also include technology-rich meeting spaces, lounge or breakout space, lockers, and printing facilities.

- **Balance distribution of the learning landscape with concentration of resources.** While it is desirable to spread these spaces throughout each campus in order to maximize the number of opportunities for discovery between the dorm room or faculty office and the classroom, it is also necessary to aggregate these spaces in limited locations in order to minimize staffing costs and provide a “critical mass” of users that will generate activity day and night. For each campus, the plan provides a learning landscape distribution plan that balances these two objectives, according to the following principles:
  - Provide a cluster of learning landscape spaces, tailored to departmental needs, at a central location within each academic precinct. Equipment, space, and support that students in the natural sciences need is different from what students in the arts and humanities need.
  - Co-locate the learning landscape with dining venues and informal gathering spaces. Students and faculty will use these spaces according to their schedules and individual inclinations.
  - Establish central oversight, approval, and funding, but design and manage each cluster with input from the faculty and students who populate the surrounding classrooms, offices, and dorms. This will give each cluster a unique character that will enable it to serve as a kind of departmental “living room,” an easily distinguishable landmark for an academic precinct within the larger campus. It will also help ensure that the primary users of each space have a voice in its staffing, maintenance, and periodic upgrades, whether these are centrally or departmentally administered.
HEART OF THE CAMPUS

The “Heart of the Campus”, or HOTC, is an inter-departmental university-wide initiative to build community and a sense of place at the center of North and South campuses. HOTC reaffirms the role of the library as the figurative center, or heart, of each campus, while acknowledging that the 21st-century library will look and perform differently from the traditional library.

HOTC will transform central library and support space on each campus into a multi-use setting housing a variety of formal and informal learning environments, IT and faculty support, on-street shopping for student services, and casual dining. The objectives are to:

• create exciting and attractive learning spaces where they can be shared by the whole campus community;
• strategically and economically take advantage of under-utilized space that has been freed up by moving books to remote shelving; and
• remain competitive with peer institutions that offer technologically sophisticated and welcoming spaces for students, faculty, and staff to study, learn, and gather.

North Campus has two “hearts”: one at Capen, Norton and Talbert halls and the other at Lockwood Library. In the future, a new living-learning quarter on the Furnas Lot, north of the Student Union, and a new humanities center building at Flint Loop, south of Capen Hall, will extend the boundaries of each HOTC project, and improved landscap- ing of Founders Promenade will further link the two hearts.

The selective renovation of Capen, Norton and Talbert halls will expand and reorganize library services and consulta- tion, integrate many student services, and provide flexible and technology-enriched classrooms and spaces for col- laboration and group study, as well as galleries and cafés. By bringing together student services, planning, and en- richment, Capen Hall will provide “entry-to-exit” services for UB’s entire student population in one place.

CAPEN HALL, one of the most actively used buildings on North Campus, lacks an appropriately friendly “front door.” The arcade on the east side is heavily trafficked yet cold, dark and foreboding, and the sunken courtyard between Capen and Norton halls is underused.

Lockwood Library will have an eye-catching new glass entry from Founder’s Promenade, leading to a new skylit lobby and new learning corridors created by enclosing the building’s existing outdoor arcades with glass. The lobby will also open onto the new Kiva Café in adjacent Baldy Hall, with a fireside lounge and large new windows overlooking Founder’s Promenade. Lockwood’s central courtyard will be enclosed by a new glass roof and walls to become an airy central atrium.

South Campus will continue to have Abbott Hall as its heart, convenient to the centrally scheduled classrooms of DeFierdor Hall and a new student union in Harriman Hall. As the health sciences schools migrate to Downtown Campus, Abbott will remain the central South Campus library, serving the professional schools, but also accom- modating other uses.

The selective renovation of ABBOTT HALL will transform its ground floor into an interactive “collaboration com- mons” with overlapping areas for the use of digital media in research and study; cybrary workstations; group work rooms; and a café. In addition to traditional library func- tions and the historic grand reading room, the upper floors will contain flexible technology-enriched classrooms for experimental teaching, informal learning spaces, and technology support.

Abbott Hall will feature extensively renovated interiors, and some of the grand ground-floor arches of the original building will be opened up with glass doors to allow for the spillover of café seating onto a south-facing terrace. The west-facing façade of the building’s 1980s addition will feature a new glass entrance lobby and other architectural treatments to acknowledge the newly reorganized Bailey Avenue entrance as a “second front door” to the campus (see Chapter 5). The original main entrance on the original building’s west-facing façade will be reopened, restoring access via the grand stairs.

The implementation of HOTC has already begun. In order to demonstrate the potential efficiencies and effectiveness of this initiative, the first phase of investment in HOTC will repurpose 300,000 net square feet of space in the three “hearts” without significant construction, adding afford- able square footage to library, student services, and academic unit spaces. This 2008-2013 capital project represents an important first step in implementing the Compre- hensive Physical Plan and testing learning landscape concepts at UB.
ENRICH CAMPUS LIFE.

Attractive campus life facilities provide more than a competitive advantage for UB in recruiting the best students. Fully integrated with the learning landscape, facilities for dining, housing, athletics, recreation and wellness, arts and culture, and student activities can nurture UB’s culture of discovery.

ON-CAMPUS DINING

With a wider variety of choices and a greater level of intimacy and personality, our dining venues can meet the tastes of a growing university population and encourage students, faculty, and staff to spend more time on campus. They can also draw more off-campus customers, helping to strengthen the community of UB while offsetting the cost of more venues with a broader customer base. The following actions will get us there:

► Provide more and better dining choices on campus. The plan strategically co-locates the following venues with elements of the learning landscape to support collaboration and create magnets for campus activity:
  - Dining commons will offer top-quality choices in a flexible residential setting. To accommodate off-hours study and also host larger student events, meetings, and performances, these generous spaces will be equipped with floor-mounted electrical outlets, acoustical treatments, adjustable lighting, and movable partitions and tables.
  - Restaurants will offer bar and table service in a sophisticated setting. A limited number of restaurants and “student-faculty pubs” will provide the UB community and visitors with a special destination for learning and interaction within a diverse student population. On-campus student learning and community-building around fast-paced university environments, will offer a variety of healthy choices for people on the go. While vending areas will be located in high-traffic areas, comfortable seating and a sense of enclosure will ensure that they do not seem like an afterthought.
  - House kitchens will be places for resident students to cook and dine together. Located in dormitory and mixed-type housing (see On-campus Housing below), these spaces will organize student life and community building around cooking, and help students expand cultural and environmental awareness.
  - University markets will be one-stop shops for affordable, locally sourced groceries and prepared foods. These clean, bright spaces, buzzing with customers and staffed by people dedicated to knowing about food and where it comes from, will help support house kitchens and on-campus apartment living while providing a convenient food shopping option for students, faculty, and staff who live off campus.
  - Privately managed venues at UB Commons on North Campus will be maintained. As detailed in Chapter 4, these venues will be relocated into leaseable space in the ground floor of new buildings along Lee Road, which will be re-designed as a new “Main Street” for both the campus and the surrounding community. Local and national franchises will be attracted to this unique atmosphere.
  - Adjust operations to maximize both patronage and efficiency. UB’s on-campus dining venues will offer extended hours of operation, and they will be made more accessible through flexible meal plans. Dining halls, cafés, and vending areas will share two or three centrally located kitchens on each campus. A separate centralized catering operation on each campus, co-located with a restaurant, will also serve special events.
  - Align dining with demand. UB will revitalize and update its 2007 Campus Dining Service Strategic Plan to determine the exact capacity and location of each venue, and coordinate these with updated funding and staffing models and marketing efforts focused on expanding the customer base for on-campus dining.

ON-CAMPUS HOUSING

UB’s research has shown that students who live on campus do better. They get better grades, graduate earlier, and drop out less frequently. Therefore, the plan aims to increase the proportion, as well as the total number, of students who live on campus.

Increasing UB’s on-campus resident populations will make our campuses better, too. With a higher level of student activity – not just during the school day, but on weekends and evenings as well – the campuses will be livelier, safer, and more attractive to prospective students. A larger on-campus population will also support stronger retail and restaurant offerings, make better use of recreational and cultural attractions, require less parking, and produce less traffic.

Today, 36 percent of UB undergraduates and 6.5 percent of graduate students live on campus. The following actions are designed to boost those numbers:

► Create a living-learning environment. Residences at UB will benefit from integration with the learning landscape spaces described above to create an immersive educational experience. All of UB’s new housing will include informal study and gathering spaces; some will include seminar and screening rooms, dining, and even retail. Such mixed-use buildings may also have access to a broader range of funding sources than housing-only buildings.

► Provide a full mix of housing types. Freshmen generally expect traditional dormitory-style housing; sophomores prefer to be housed “suite-style,” with multiple bedrooms connected to a common living area and bathroom; upperclassmen and graduate students prefer apartment-style housing. The plan illustrates a building-out of 326 GSF/student for dormitory and suite units, which is within the benchmark established by the Association of College and University Housing Officers; and 623 GSF/student for apartments, which is the average size of existing apartments on North Campus.

► Provide supportive services. All undergraduate housing will be supported with a 24-hour live-in supervisory presence, security, conflict resolution services, and referrals to critical campus services such as University Counseling and University Police. Housing targeted to incoming freshmen, international students, and out-of-town students, who show the highest demand for on-campus housing, will include additional supportive services.

► Target housing to specific disciplines. Flint Village on North Campus has been successfully promoted as a “law community” due to its close proximity to the UB Law School, reserved singles housing for law students, a dedicated UB Housing staff liaison, and amenities such as printers in shared study areas. The model has successfully made the Law School the graduate program with the highest percentage of students living on campus. We will seek to match other schools and academic programs with housing designed with those students in mind.

► Explore mixed housing types. Combining different underclassmen classes in the same building will allow for richer interaction within a diverse student population. On-campus housing with separate floors for lowerclassmen and upperclassmen could be a model for encouraging students in the Honors College and the Undergraduate Academies to remain on campus throughout their undergraduate education. On-campus student housing with faculty apartments could provide both a supervisory presence and an opportunity for out-of-classroom interaction between students and educators.

► Encourage mixed campuses. Some students prefer to live on the campus where the majority of their classes are located; others may choose to live on a particular campus based on its housing types, its surrounding neighborhood, or the character of its buildings and open spaces. Today, North Campus offers a mix of residence halls and apartments, while South Campus offers only residence-hall housing. Each campus will provide a full mix of housing types to satisfy a broad range of students and accommodate shifting populations as the migration of schools and programs proceeds – and, with improved inter-campus transportation (see Connecting below), it will be easier for students to choose on-campus housing at any campus, no matter where their classes are located.

► Align housing with demand. We cannot fully predict what the student market will demand over the next 20 years. Further study is needed to determine where UB’s additional students might come from – i.e., in-state, out-of-state, or international – and what their housing needs will be. Each new on-campus residence built according to the plan will be taken as an opportunity to learn and adjust our approaches for subsequent projects.

► Pursue more flexible financing models. As UB expands on-campus housing, new approaches to finance will be required. We need more flexibility to meet our competition in higher education by raising our standards for design, construc- tion, and rehabilitation of on-campus housing. New products may allow for sharing the debt burden across the entire campus housing portfolio. Longer term financing, refinancing current debt to improve terms and leverage appreciated value, using revenue streams from mixed-use buildings, and other fiscal innovations should be implemented. Rental pricing should be based on size, type, and amenities for each development.
OFF-CAMPUS HOUSING

Although increasing the on-campus population is an important goal for UB, the majority of the student population will continue to live off-campus. The Buffalo region has a surplus of affordable housing options, but almost none of it is specifically designed for students. Lack of maintenance and supervision, high turnover rates, and other problems associated with off-campus housing have created tensions between UB and the neighborhoods surrounding our campuses. The following actions will support off-campus housing:

- **Improve off-campus housing conditions.** The Office of Off-Campus Student Services, formed in 2007, will respond to community concerns, work with students to develop good citizenship skills, and encourage the development of block clubs to address local safety, noise, trash removal, property maintenance, and other neighborhood quality-of-life issues. UB will continue to work with developers seeking to build off-campus student housing with appropriate amenities, to address local safety, noise, trash removal, property maintenance, and other neighborhood quality-of-life issues. A new off-campus student housing conditions plan will be coordinated with this work.

- **Encourage supportive off-campus development.** The plan identifies areas around each campus which should become the target of more focused coordination among UB and the neighborhoods surrounding our campuses. See Connecting below and the individual campus chapters for more details.

ATHLETICS, RECREATION AND WELLNESS

Intercollegiate athletics promote institutional pride among students and alumni, raise UB’s national and international visibility, bring the community onto the campuses, and create memorable experiences for both athletes and fans. Recreation, fitness training, health services, counseling, and wellness education help students, faculty, and staff stay healthy, happy, and active. Many of UB’s recreational facilities are also open to the public general public. The following actions will boost UB’s intercollegiate competitiveness, while providing resources for the surrounding communities as well:

- **Provide expanded and improved facilities.** New state-of-the-art recreation facilities on each campus will accommodate planned growth, and existing facilities will be updated. Bigger and better athletics venues will include a new indoor practice facility for football and a new tennis center, and could include a more functional Kunz Field.

- **Provide more multipurpose fields.** Existing athletics facilities and fields will be protected from future development. North and South campuses will have lawn areas for non-organized recreational sports, and each will have one new all-weather field with artificial turf that can accommodate soccer, football, lacrosse, cricket, and other sports.

- **Utilize natural assets for year-round recreation.** The edges of North and South campuses will become recreational greenways open to community use. A revitalized Lake LaSalle on North Campus will support boating, and both the lake and a new pond on South Campus will accommodate ice skating, hockey, and other winter sports. New multi-use trails on each campus, connected to the region’s bicycle and pedestrian path network, will be left unplowed in winter for cross-country skiing and snowshoeing.

- **Relocate wellness services.** The university’s only health services center is located in small and outdated space on South Campus, where these services are least likely to be in demand under the redistribution of schools. Under the plan, wellness services will be co-located with new recreational facilities on North Campus. On Downtown Campus, health services may be provided by or in collaboration with our partners in the BNMC.

ARTS AND CULTURE

A university with the breadth and depth of UB’s academic programs in architecture, art history, visual arts, media arts, music, theatre, and dance should have campuses suffused with experiences to enrich the imagination of students, faculty, staff, and visitors alike. At UB today, arts and cultural offerings are spread across a wide array of venues with varying degrees of visibility and public access, from the showcase facilities at the Center for the Arts and the UB Anderson Gallery to the hallways of administrative and departmental offices. The following actions will energize campus life and welcome the community to support the vitality of the region’s “creative class” of artistic professionals, and augment the world-class cultural institutions at the heart of Buffalo’s tourism economy by making arts and culture more accessible at UB.

- **Provide new publicly accessible arts and cultural facilities.** In addition to expanded space for academic programs in the arts and cultural studies, UB will house new kinds of venues, including an arts loft combining studio, classroom, gallery, performance, and possibly residential space in one building; a humanities center with gallery and research space, and a meeting and performance hall, and a new outdoor amphitheater.

- **Integrate arts and culture into campus life.** On each campus, the informal spaces of the learning landscape will provide a multitude of opportunities for exhibits, impromptu performances, and other artistic ventures. The plan also identifies locations where new public art installations will serve a dual role as landmarks of UB’s cultural significance and as landmarks to assist in navigating the campuses (see Placemaking below). UB will establish a public art committee to develop a comprehensive plan for administrating and accommodating permanent, experimental, and curriculum-based art on our campuses.

- **Provide a student union on each campus.** Each campus will have one or two centrally located facilities dedicated to student activities, with expansion space to accommodate growing participation. Offices, meeting rooms, lounges, flexible event spaces, and supportive technology will be organized around central gathering spaces and casual dining venues, fully integrated with the learning landscape of each campus.

- **Provide an international students’ union.** With a higher level of international enrollment than any other public research university in the U.S., and exchange programs with over 60 universities worldwide, UB needs a place dedicated to helping its international students feel at home. Co-located with the general student union, the international students’ union will provide space for international clubs, host orientation sessions, and encourage cultural exchange.

- **Connect student life across the campuses.** Each student union will feature a campus-to-campus portal in its central gathering space—a giant video screen that can be used to broadcast live events, support multi-campus student activities, or provide a real-time “window” into the other campuses or the world at large. Focused audio speakers, similar to those used in many museums, will direct the sound to a precise area in front of the screen so that broadcasts can be heard without overwhelming the entire space.

STUDENT ACTIVITIES

Student government, publications, clubs, community service, and other co-curricular activities engage UB students with each other and the surrounding communities, and often provide the inspiration for post-graduate careers. Today, most of these activities are housed in warrens of crowded spaces, widely dispersed across each campus, and poorly matched to the needs of different users. The following actions will support UB’s thriving student activities culture:

- **Provide a student union on each campus.** Each campus will have one or two centrally located facilities dedicated to student activities, with expansion space to accommodate growing participation. Offices, meeting rooms, lounges, flexible event spaces, and supportive technology will be organized around central gathering spaces and casual dining venues, fully integrated with the learning landscape of each campus.

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Never have UB and the Buffalo region been as interdependent as they are today. UB depends on the region’s housing, schools, jobs, transit services, and retail, cultural, and recreational assets to support and enrich the lives of its students, faculty, and staff. In turn, jobs at UB, direct spending by the institution, capital investments, spending by students and visitors, and other activities have an immense financial and social impact on the region’s communities; our campuses are regional centers for economic, cultural, and recreational activity, and our students and employees generate a significant amount of the area’s traffic and other environmental impacts.

Despite these interdependencies, UB’s campuses have yet to become fully integrated with our surrounding neighborhoods or the region as a whole. The plan’s strategies for connecting focus on UB’s relationship with the surrounding community, on transportation, and on orientation and navigation, or wayfinding. These are guided by three key principles:

Open campuses. This plan renames UB’s commitment to keep its campuses open—safe and secure, but open—and welcomes the public with new on-campus facilities offering educational, recreational, retail, and entertainment activities, and new ways to get to those facilities. There will be no fences, no gates that close, no permanent barriers to those who wish to visit our facilities or stroll across our grounds.

Seamless connections. The success of UB’s three-campus model, the guiding principle of interdisciplinary collaboration, and the integration of UB and the surrounding community depend on convenient, safe, reliable local and regional connections. Under the plan’s redefinition of schools, some people may experience less inter-campus travel, but others may experience more—such as those who find new cross-campus opportunities for collaboration, and those who choose to live on or near one campus and work or study or participate in cultural activities at another. While cars will still be used by many to make these connections, other modes of travel must play a bigger role than they do now.

Equitable access. Today, faculty and staff who drive to UB receive a subsidy in the form of free parking, while commuters who walk, bike, or use public transit receive no equivalent subsidy. Parking lot maintenance, the UB Stampede and shuttle systems, and bike programs are paid for by a transportation fee levied on all students, whether they park on campus or not, while faculty and staff pay nothing at all. Simple fairness requires us to develop a more equitable system for providing access to and across our campuses.

The following university-wide strategies build on these concepts to facilitate connecting at UB.

**BRING US CLOSER TO OUR NEIGHBORS.**

Each UB campus should feel like an integral part of its surrounding neighborhoods. While campus boundaries must remain clear for purposes of institutional identity, visitor wayfinding, and security, they should not feel like barriers to those wishing to use the campuses for legitimate purposes. North Campus is isolated from the rest of Amherst by high-speed highways and parkways and a surrounding ring of open, unpopulated open space. South Campus is set apart from neighboring University Heights and Amherst by traffic, parking lots, and a lack of welcoming touches. The following actions will connect the UB campuses with our neighboring communities both programmatically and physically:

- **Provide more community-oriented spaces.** The campuses will have new continuing education facilities, expanded athletics facilities, and new venues for the arts and cultural activities that will bring residents of the region and other visitors onto our campuses. The plan also sets aside space for new neighborhood assets that would be developed in partnership with private entities, such as new retail shops and restaurants, a hotel and conference center, and a retirement community for seniors who seek the educational and cultural richness of a university setting. A laboratory school, designed for UB’s Graduate School of Education to research and develop state-of-the-art teaching methods, will also benefit local students.

- **Physically integrate the campuses into the region.** This plan treats our campuses—owned by the State of New York—as public parks, with new green spaces, indoor and outdoor recreation facilities, and multi-use trails connected to the region’s network of bike and jogging paths (see Athletics, Recreation and Wellness above). Improved connections to public transportation, new sidewalks and crosswalks, new welcoming campus entries, simplified and traffic-calmed on-campus roadway networks, better signage, and the extension of neighborhood streets onto the campuses will facilitate public access (see Broaden Transportation Options and Clarity Campus Navigation below).

- **Support stronger campus-community relations.** The programmatic and physical connecting strategies of the plan will be leveraged by improved security and an expanded community relations infrastructure to help create stronger neighborhoods; link them more closely to our campuses; inspire greater involvement in the community by UB students, faculty, and staff; and help make a safer, more welcoming environment for all.

**GROW IN CONCERT WITH OUR COMMUNITIES.**

As discussed in Chapter 2, the plan is the product of a long and continuing collaboration with our government partners. Part of this process has been to ensure that UB’s plan is consistent with the following plans, each of which acknowledges the central role the university must play in the development of the region:

- **Erie-Niagara Framework for Regional Growth (2016)**
- **2030 Long-Range Transportation Plan for the Erie and Niagara Counties Region (2007)**
- **Transportation Improvement Plan 2008-2012 (2007)**
- **Queen City in the 21st Century: Buffalo’s Comprehensive Plan (2004)**

The following actions align UB’s planning with that of city, town, county, and region:

- **The Queen City Hub: A Regional Action Plan for Downtown Buffalo (2003)**
- **Town of Amherst Bicentennial Comprehensive Plan (2004)**

**Regional Economic Development**

**From Queen City Hub: A Regional Action Plan for Downtown Buffalo (2003)**

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- **Town of Amherst Bicentennial Comprehensive Plan (2004)**

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- **Set a pattern for sustainable regional growth.** All of the plans listed above identify the Main Street/Malariaguay Highway corridor with North Campus on one end, Downtown Campus on the other, and South Campus in the middle—as a primary target for investment and development. It is no coincidence that our three campuses map neatly onto this corridor, as UB’s presence has strongly influenced regional growth over time. The plan will encourage future growth within this corridor, building on existing infrastructure and centers of economic activity and relieving development pressure on the region’s remaining open space and natural resources.

- **Encourage mutually beneficial development.** A growing UB needs the neighborhoods around our campuses to offer more stable housing; more retail, dining, entertainment, and commercial services; and employment opportunities for students. And the neighborhoods around our campuses need more steady homeowners, a bigger market for their businesses and services, and better access to jobs. As detailed in the individual campus
chapters that follow, the plan identifies opportunities for residential, commercial, and retail revitalization and new development around each campus to create a more dynamic, more marketable “college town” economy with benefits for both UB and its neighbors.

- **Minimize impacts on municipal infrastructure.** The plan’s comprehensive transportation strategy will support improvements to public transit and reduce our dependency on cars for travel to and around the campuses, minimizing impacts on local traffic and parking. In accordance with UB’s commitment to climate neutrality, the plan will also reduce our greenhouse gas (GHG) emissions through a combination of infrastructure and building upgrades, transportation strategies, revised purchasing and waste management arrangements, and the purchase of carbon offsets that support off-site GHG mitigation efforts and renewable energy development. And the plan’s strategies for architectural, roadway, and landscape design on the campuses will minimize impacts on local sewer systems. A complete report on plan impacts and mitigating strategies is provided in the General Environmental Impact Statement (see appendix).

**BROADER TRANSPORTATION OPTIONS.**

The automobile will remain a fixture of life at UB for the foreseeable future. But our current level of dependence on cars – particularly vehicles with just a single occupant, which is how most of UB commutes to our campuses – is unsustainable. A recent survey showed that 90 percent of faculty and staff and 76 percent of students who live off campus commute to UB by single-occupancy vehicle. Global climate change, the economics of energy use, limited land, and the goal of more interactive, more widely accessible, more livable campuses all demand an evolution in the way students, faculty, and staff travel.

This evolution will have to be gradual. Today, many UB students, faculty, staff, and visitors use alternative modes of transportation – walking, biking, carpooling, and university and public transit systems, all of which use less energy and produce less pollution per person-mile than single-occupant vehicles – but our campuses do not provide enough choices, incentives, or continuity of connections to fully support these alternatives. Under the plan – and over time – these things will change. At the same time, our campuses, too, must change so that they can more safely accommodate, in the space we have now, both cars and more people using alternative modes of transportation.

Broadening transportation options at UB involves four key strategies: creating walkable, bike-friendly campuses; providing smooth transit connections; improving the fit between cars and our campuses; and promoting sustainable transportation alternatives.

**CREATE WALKABLE, BIKE-FRIENDLY CAMPUSES.**

A significant number of students, faculty, and staff at UB prefer the flexibility, low cost, and health benefits of walking and biking to other modes of travel, all of which cost more and have greater environmental impacts. But pedestrians and bicyclists are challenged by easily correctable conditions such as conflicts with cars and service vehicles, missing and untended sidewalks and pathways, a lack of marked bike routes and supporting facilities, and limited connections to local and regional trails.

The following actions will increase the viability of walking and biking as primary modes of travel to and on UB’s campuses:

- **Encourage year-round walking and biking.** People will walk and bike more in winter if they have safe, comfortable routes. New buildings and plantings will attenuate winter winds, and pathways will be shifted toward sunny areas where possible. More sustainable de-icing treatments and new curbs on major pathways will facilitate plowing. And UB will work with local governments to ensure that off-campus bike routes are maintained and plowed during winter. See Placemaking below for details on how the plan will improve the pedestrian experience year-round.

- **Prioritize pedestrians and bikes in the campus core.** More pathways, more crosswalks, more green space, new “Bike-Friendly Campus: Share the Road” signage at vehicular campus entrances, and new “Pedestrian Priority 5 MPH” signage at high-volume pedestrian crossings will make this support for walking and biking clear to users of all modes of transportation. Roadways, service access, and parking will be reconfigured to minimize conflicts among cars, pedestrians, and bicyclists.

- **Improve commuter bike routes.** Now, improved, and more clearly marked on-campus bike routes will be connected to existing regional and local bicycle networks. New campus-to-campus routes, which may be specially marked to aid navigation, will connect the campuses to each other and to off-campus housing and other community resources. To maximize safety and minimize confusion, the plan designates all on- and off-campus routes according to the following system:
  - **On-campus bike lanes:** separate, signed lanes restricted to bicycles.
  - **On-campus shared roads:** slow-speed streets shared by bicycle and vehicles, with prominent signage and/or roadway markings to alert vehicles to the presence of bicyclists.
  - **Off-campus shared paths:** sidewalks, pathways, or trails shared by bicycle and pedestrians; main sidewalks and pathways will be plowed by UB to a width that accommodates pedestrians and bicyclists together.

- **Enhance on-campus bike facilities.** To support a bigger, year-round bike population, UB needs a better infrastructure of facilities dedicated to bicycling:
  - **More bike parking** will be located where bicycle use is highest, with racks designed through a student competition to draw attention to bike improvements.
  - **More bike lending** will build on the regional Buffalo Blue Bike bicycle lending program, a 200-member organization with seven parking facilities on UB campuses and many others throughout Buffalo.
  - **New centralized bike stations** on each campus will provide limited rentals for occasional visitors, tools that can be used for on-site repairs, and showers, changing rooms, and lockers for commuters who bike or jog to the campuses.
  - **Bike racks** on all UB transit including shuttles and the Stampedes. UB will also continue to encourage the Niagara Frontier Transportation Authority (NFTA) to install bike racks on all Metro Buses serving the campuses.

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Inter- and intra-campus transit operated by UB carries about 3.5 million passengers annually, mostly students. The NFTA provides public transit service throughout the region with its Metro Bus and Metro Rail lines. Despite the popularity of these services, they are underutilized by the UB community and the regional population at large. Rather than the mode of choice, they tend to be the mode of last resort for those who lack access to an automobile. The following actions will increase UB transit ridership by better coordinating the options offered by UB and the NFTA and enhancing them with new routes, expanded service, expedited and more comfortable transfers, and more welcoming stations and other facilities:

- **Work with NFTA to expand Metro Bus service.** Metro Bus provides service over an extensive area in Niagara and Erie counties, but it has few direct campus connections, and operates at schedules that make it impractical for much of the UB community to rely on buses as a primary mode of transportation. The plan identifies concentrations of UB employees and students as well as key destinations for which transit service is sought by students, as a first step toward working with NFTA to improve Metro Bus routes to the campuses.

- **Work with NFTA to subsidize a “Uni-Pass” for the UB community.** UB and the NFTA are in discussion to provide unlimited travel at a discounted rate on all Metro Rail and Metro Bus service to the campuses, better access to the surrounding neighborhoods, and reduced demand for on-campus parking. UB will gain expanded rider ship and a solid base of support for improvements such as an extension of the Metro Rail.

- **Provide smooth transit connections.** Potential Alignments for Metro Rail Extension
  - UB Stampede
  - NFTA bus
  - NFTA park-and-ride

- **Provide mobility options for students.** The UB Stampede is used by 30 percent of students; intra-campus shuttles are used by 16 percent. These numbers will be raised by improvements such as more efficient, more comfortable vehicles with Wi-Fi service; more convenient shuttle routes on each campus; and new bus shelters with better weather protection, GPS-enabled electronic signage displaying the arrival time of the next bus, better signage, and a more appealing design (see sidebar at lower right).

- **Improve transfers between modes of travel.** New transit pavilions, located where shuttle, Stampede, Metro Rail, and Metro Bus stops converge at the core of each campus, will make the experience of using alternative modes of transport easier, more comfortable, and more pleasant. Each transit pavilion will provide indoor waiting areas and seating, a small café or vending area, ride information, and carpooling information for commuters and vacationers, schedules for all forms of transit, and a UB bike station.

- **Short term: Upgrade Stampede and shuttle service.** The UB Stampede is used by 30 percent of students; intra-campus shuttles are used by 16 percent. These numbers will be raised by improvements such as more efficient, more comfortable vehicles with Wi-Fi service; more convenient shuttle routes on each campus; and new bus shelters with better weather protection, GPS-enabled electronic signage displaying the arrival time of the next bus, better signage, and a more appealing design (see sidebar at lower right).

- **Middle term: Upgrade the Stampede to University Bus Rapid Transit (UB-BRT).** Bus Rapid Transit is a transportation concept that seeks to provide train-like service, but without the tracks. To reduce travel time and increase efficiency, many BRT systems utilize signal preemption, which automatically extends green or shortens red lights ahead of each bus; and queuing jumping, which combines a bus-only bypass lane with a bus-only early green light to allow buses to move ahead of traffic lined up at intersections. In cooperation with the New York State Department of Transportation (NYSDOT), the UB Stampede could be implemented by UB or, if the Uni-Pass is in place, by the NFTA, which would probably add limited stops between campuses.

- **Long term: Support a “one-seat ride” between all three campuses.** Currently, the quickest route between UB’s North and Downtown campuses requires a transfer at South Campus, between the Stampede and the NFTA Metro Rail. In order to cut travel times and reduce the parking requirements and traffic impacts of a major downtown campus, the plan strongly supports the extension of Metro Rail service to North Campus and major commercial centers beyond, creating a "one-seat ride" to allow travel between all three UB campuses without a transfer. Bus Shelter Prototype

**The Benefits of extending the Metro Rail will reach far beyond UB, which is why it is supported by all of the region’s recent planning efforts. It will provide better commuter service in both directions between the Amherst suburbs and downtown, reduce traffic and parking congestion downtown. It will significantly increase NFTA ridership and improve utilization of the existing Metro Rail, which has access capacity. And it will spur new development along the Main Street-Millersport growth corridor.**

**Building UB — the Comprehensive Physical Plan**

**Chapter 3 — One University**
**IMPROVE THE FIT BETWEEN CARS AND OUR CAMPUSES**

While we know that alternative modes of travel will become increasingly central to creating seamless connections and providing equality of access to our campuses, we also need to continue to accommodate cars. And we need to do a better job of it. More than 26 percent of South Campus and nearly 16 percent of North Campus are covered by roadways and parking lots, which take up valuable spaces, are unfriendly to pedestrians and bicyclists, contribute heavily to polluted stormwater flows, and create a perceptual barrier between our campuses and the surrounding neighborhoods. The following actions will make our cars a better fit for the kind of campuses we want to have:

- **Reduce traffic speeds.** Unnecessary high traffic speeds present a significant danger on our campuses. In general, drivers will go as fast as the roadway allows them to, regardless of speed limits. Narrower road widths, two-way traffic in place of one-way traffic, more on-street parking, and, on North Campus, new roundabouts in place of signalized intersections, will help calm our traffic, reducing accidents and making it safer for pedestrians and bicyclists to cross.

- **Create functional loop roads.** Currently, the loop roads on North and South campuses are incomplete, difficult to access and navigate, and unnecessarily discouraging to pedestrians and bike traffic. Revised loop roads on each campus will improve vehicular access, reduce travel distances, and simplify wayfinding, while helping to keep cars and service vehicles out of the pedestrian-oriented campus core.

- **Make pedestrians and bicyclists more visible to drivers.** In addition to the improvements described above, under the heading Prioritize Pedestrians and Bikes in the Campus Core, every on-campus roadway will have sidewalks, and new crosswalks, traffic-calmed streets, shared plazas (see sidebar), and roundabouts (see Chapter 4) will slow traffic and force drivers to make greater allowance for pedestrians and bicyclists.

- **Make parking lots greener and more pedestrian-friendly.** Most on-campus parking lots will incorporate new bioswales, or planted areas designed to collect, filter, and absorb rainwater and unworn soil. The Bioswales Create Campus Landscapes below. Trees in the bioswales will help attenuate winter winds and provide shade in summer. Some bioswales will also incorporate paths to help separate pedestrian circulation from parking lot traffic lanes.

- **Build parking garages.** New garages on each campus will concentrate parking where it is most convenient to users; free up land for new buildings and pedestrian-friendly landscapes; minimize plowing and de-icing; reduce the amount of land covered by imperious paving and curb flows of polluted rainwater; and facilitate shared use of parking spaces by typical peak academic users (weekdays) and off-peak visitors to on-campus dining, shopping, and athletics and cultural events (weekend). See the sidebar at right for more on the design and financing of garages.

- **Expand disability parking.** Any disability spaces displaced by new construction or changes in campus roadway networks will be replaced with new spaces in garages and other convenient locations, in keeping with current UB policy. The number of spaces will increase further in proportion to campus growth.

**SHARED PLAZAS**

The North and South campuses will feature new shared plazas—sections of on-campus streets that are specially designed to combine a vibrant pedestrian street life with vehicular access, all while reducing accident rates. Shared plazas have proved safer than other kinds of intersections or crossings because their design forces everyone—especially drivers—to slow down and use extra caution and careful observation.

At other kinds of intersections, safety is dependent upon strict adherence to rules and signals separating pedestrians from cars, which are often disobeyed; consider the number of times you have seen a pedestrian jaywalk, or a driver roll through a stop sign. In shared plazas, where drivers and pedestrians are mixed, they are forced to make greater allowance for pedestrians and bicyclists to cross.

**BUILDING UB – THE COMPREHENSIVE PHYSICAL PLAN**

**CHAPTER 3 – ONE UNIVERSITY**
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<tr>
<td>Moderate Measures</td>
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<tr>
<td>Enhance on-campus bike facilities</td>
<td>3%</td>
<td>Medium</td>
<td>Low</td>
<td>Short-Term</td>
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<td>Support a car sharing program on campus</td>
<td>2%</td>
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<td>Low</td>
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<td>Guarantee a ride home in case of emergency or late hours for employees who use alternative modes</td>
<td>NA (1)</td>
<td>Low/None</td>
<td>Low</td>
<td>Medium-Term</td>
<td>—</td>
<td>P&amp;T</td>
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<tr>
<td>Restrict resident student parking on campus to residents only</td>
<td>5% (2)</td>
<td>None</td>
<td>None</td>
<td>Short-Term</td>
<td>—</td>
<td>P&amp;T</td>
</tr>
<tr>
<td>Develop UB rideshare networking tools</td>
<td>3%</td>
<td>Low/None</td>
<td>Low</td>
<td>Short-Term</td>
<td>—</td>
<td>P&amp;T</td>
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<tr>
<td>Improve commuter bike routes</td>
<td>3%</td>
<td>Medium</td>
<td>Low</td>
<td>Short to Medium-Term</td>
<td>—</td>
<td>P&amp;T</td>
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<tr>
<td>Create UB park-and-ride lots for campus and commuter lots</td>
<td>5%</td>
<td>Medium/Low</td>
<td>Low</td>
<td>Medium-Term</td>
<td>Negotiate with property owners for use of property</td>
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<tr>
<td>Expand telecommuting and flexible work schedules</td>
<td>3% (3)</td>
<td>None</td>
<td>Low</td>
<td>Short-Term</td>
<td>—</td>
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**Aggressive Measures**

| Land free bikes to students who do not apply for parking permits | 3%-5% (3) | Medium/Low | Low/Medium | Short-Term | Partner with third party to donate or purchase and maintain bikes | P&T |

| Provide monetary incentives to employees who use alternative modes | 10%-15% (4) | Initial cost recouped over time with savings in parking facilities | Medium | Medium-Term | Negotiate contractual parking obligations with unions; obtain SUNY approval | DHR/SUNY |

| Unbundle student parking fees from general student transportation fees | 15%-25% (5) | Lost revenues offset by increased parking fees | Medium | Short-Term | — | P&T |

| Price parking by proximity to the academic core | 5%-10% (6) | Medium | Low/Medium | Low | Dependent on monetary incentives for faculty and staff and allocation of student fees | P&T |

| Prohibit resident freshman parking on campus | 15%-20% (7) | None | Low/None | Short-Term | Study potential impact on student recruitment | P&T |

| Subsidize an NFTA “Uni-Pass” for students and employees | 15%-25% | None | Medium/Depends on subsidy | Long-Term | Level of payment by UB-dependent on expanded NFTA service to campuses | UB/NFTA |

| Upgrade the Stampede to a U-BRT with improved shelters and electronic vehicle signages phase 1, queue-jumping and bypass lanes phase 2 | 5% | Medium | Medium-Term | Coordinate with NFTA on Phase 2 | UB/NYSDOT |

**Provide monetary incentives to employees.** UB currently encourages faculty and staff to use their car by providing free parking, a contractual obligation, but uses of other travel modes get no comparable incentive. Under the monetary incentive or “cash out” program, which requires negotiation with UB unions, employees will receive a taxable cash allowance equal to the cost of a basic on-campus parking permit. (This allowance should be priced in relation to the real cost of providing parking, rather than the cost of just administering the permit itself, as is the case today.) Each Employee will have the choice to spend the allowance on a permit, or to “cash out” and spend it on an NFTA pass or keep it for themselves if they choose to carpool, bicycle, or walk. The initial costs of this program will be recouped over time by reductions in parking construction and maintenance.

**Provide limited free parking passes.** UB faculty and staff who “cash out” and commit to using alternative transportation will receive a limited number of free parking passes each year for occasions when they need or want to drive to campus. The free passes will help encourage employees to join the “cash out” program, which otherwise does not allow participants to bring their cars to campus without paying for visitor or metered on-street parking.

**Guarantee a ride home.** This program, already available to commuters through UB CarFree, will be extended to provide peace of mind to faculty and staff who generally use alternative commuting modes. UB will provide a free shuttle or taxi ride home in case of an emergency or unanticipated work schedule change. Limited to a specified number of uses per year, this program is designed to offset a primary reason why some people prefer to commute by single-occupant car.

**Price parking by proximity.** A higher fee will be charged for parking in garages close to the cores of North and Downtown campuses. (Proximity fees are not an option on South Campus, where all on-campus parking will be near to the core and more than half of all parking spaces will be in garages.) Faculty and staff will be able to choose whether they want to pay the proximity fee — this concession — on top of their parking pass. The proximity parking passes are designed to provide an incentive for employees to use alternative transportation modes. This program, already available to car-poolers through UB CarFree, will be extended to provide peace of mind to faculty and staff who generally use alternative commuting modes. UB will provide a free shuttle or taxi ride home in case of an emergency or unanticipated work schedule change. Limited to a specified number of uses per year, this program is designed to offset a primary reason why some people prefer to commute by single-occupant car.

**Support a car sharing program on campus.** Across the U.S., car sharing is catching on where concentrated populations have occasional need of a car but ownership, parking, or rental costs are high. UB will partner with a commercial or nonprofit car-sharing company by promoting the program and reserving some conveniently located, full-time parking spaces on each campus to station the vehicles. These vehicles will be available on short notice through an Internet-based reservation service, with the flexibility to rent for a few hours on a few days.

**Develop UB rideshare networking tools.** UB CarFree promotes the use of established regional carpooling programs, but these are not targeted to serve the UB community. New UB-focused rideshare boards, advertising regular commuter rides as well as occasional need of a car but ownership, parking, or rental costs are high. UB will partner with a commercial or nonprofit car-sharing company by promoting the program and reserving some conveniently located, full-time parking spaces on each campus to station the vehicles. These vehicles will be available on short notice through an Internet-based reservation service, with the flexibility to rent for a few hours on a few days.

**Support telecommuting and flexible work schedules.** This human-resources oriented program will coordinate flexible work hours, subsidies for home computers, and other incentives to reduce traffic and parking demand on our campuses during peak times. This TDM measure, which already applies to freshmen on-campus residents, will prohibit all students who live on campus from parking their cars in non-residential lots. Some students will have to use the shuttle, walk, or bicycle to get around on campus, unless they pay to park in a visitor lot or on a non-metered parking space, or use one of their day-long on-campus parking passes.

**Prohibit resident freshman parking on campus.** One of the most effective ways to transform automobile use on a campus is to focus on nonresidents. Under this TDM strategy, all freshmen who live on campus will be prohibited from bringing a car to campus, including both residential and non-residential lots. Temporary parking permits could be allowed for freshmen who can demonstrate that a car is required to get to their off-campus jobs. This TDM measure, which is contingent on improvements to intra- and inter-campus transit service, requires further study to ensure that it will not negatively impact student recruitment or UB’s efforts to increase demand for on-campus housing.

**Lend free bikes.** Under this incentive program, students who don’t apply for a parking permit will be entitled to borrow a free bike from UB. Participating students will pay a security deposit to ensure return of the bike at the end of the semester or school year. UB will likely partner with a non-profit organization to provide and maintain the bicycles.

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**Create UB park-and-ride lots for carpoolers and vanpoolers.** New UB-focused park-and-ride lots will be located near high concentrations of faculty, staff, and students living in outlying areas in order to support UB-organized carpools or vanpools.

**Reserve preferential parking for carpools and vanpools.** Under UB CarFree, the university has begun reserving spaces for carpenters near the academic cores of each campus. Preference parking fees will not apply, and the members of each carpool will be able to split the basic permit fee for their space and pocket the remainder of their monetary incentives. Vanpooling will be completely free.

**Support telecommuting and flexible work schedules.** This human-resources oriented program will coordinate flexible work hours, subsidies for home computers, and other incentives to reduce traffic and parking demand on our campuses during peak times. This program will likely produce significant benefits to employee efficiency and morale.
 PROVIDE SUFFICIENT PARKING TO MEET DEMAND.

Although the plan’s TDM measures and bicycle and transit improvements will significantly reduce automobile use and the demand for parking on-campus, UB will still need to provide new parking facilities to accommodate some of our planned growth, and to replace parking that will be displaced by new buildings or landscapes. Accurate and ongoing forecasting of parking demand is necessary to ensure that UB will not build too much or too little new parking.

As summarized in the chart below, the plan’s parking demand projections estimate the needs for each campus under different levels of commitment to TDM and of investment in bicycle and transit improvements. These numbers include garages, surface lots, and new metered on-street parking on each campus, which will provide an additional source of revenue to UB. Rather than relying on individually metered spaces, on-street parking will be served by centralized “pay and display” parking meter systems to maximize efficiency.

These projections also take into consideration the differing transportation profiles of the three campuses: North Campus is more auto-oriented and has less transit service than South Campus, which in turn is more auto-oriented and has less transit service than Downtown Campus. Downtown Campus also has the greatest pedestrian and bicycle accessibility due to its proximity to areas with higher residential density. As a result, more new parking per additional student, staff, and faculty member will need to be provided on North Campus than on South Campus, which in turn will require more new parking per additional person than Downtown Campus.

SUMMARY OF PARKING DEMAND PROJECTIONS (by parking spaces)

<table>
<thead>
<tr>
<th>Campus</th>
<th>North Campus</th>
<th>South Campus</th>
<th>Downtown Campus</th>
<th>Total UB</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 parking demand</td>
<td>12,141</td>
<td>3,292</td>
<td>207</td>
<td>15,640</td>
</tr>
<tr>
<td>Plan build-out...</td>
<td>14,225</td>
<td>3,508</td>
<td>3,817</td>
<td>21,540</td>
</tr>
<tr>
<td>...with no change in TDM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>...with moderate TDM</td>
<td>12,994</td>
<td>3,344</td>
<td>3,626</td>
<td>19,964</td>
</tr>
<tr>
<td>...with aggressive TDM</td>
<td>10,584</td>
<td>2,845</td>
<td>3,217</td>
<td>16,646</td>
</tr>
<tr>
<td>...with one-seat ride</td>
<td>9,540</td>
<td>2,599</td>
<td>2,895</td>
<td>15,034</td>
</tr>
</tbody>
</table>

CLARIFY CAMPUS NAVIGATION.

With three campuses, more than 200 on-campus buildings, and miles of roads and paths, UB can be a challenging place to navigate for new visitors and long-time employees alike. While the roadway changes described above under the Fit Between Cars and Our Campuses will help, these must be supported by signage and other tools to help travelers find their way to and around our campuses.

Currently, UB’s wayfinding signage and the signage that leads travelers to our campuses are inconsistent, and does not adequately respond to the different needs of drivers, transit users, bicyclists, and pedestrians, or the varying expectations of the UB community and the visiting public. It also divides the North and South campuses into “complexes” based on activity or location, and the boundaries and definitions of these complexes will shift as the campuses are reshaped by the plan.

The plan proposes a new, comprehensive wayfinding system – signage, landscapes, public art, maps and other visual cues and forms of information – to make it easier to get to and around the UB campuses, clarifying routes to unfamiliar destinations and making key campus resources more accessible to all.

Since UB’s existing signage was installed relatively recently, it will be upgraded in phases. In the near term, much of the existing signage will be modified with new information and improved directional markers. As schools relocate and major changes to the campuses are completed, the signage will be replaced.

Create visitor centers. To make our campuses more welcoming to visitors, each campus will have a prominently marked facility displaying campus maps, announcements, and key information on university events and programs, centrally located near public and UB transit, visitor parking and/or drop-offs, and university administrative offices.

Provide an unbroken chain of information to visitors. The following actions will create a continuing string of crystal-clear information through all stages of a typical visit to UB (see the Technical Guide on Signage and Wayfinding in the appendix for more details).

• Coordinate approach signage. UB will work with NYSDOT to ensure that every key decision point on nearby highways and major roadways that leads to the campuses will have consistent, clear signage. Currently such signage is missing from some locations and inconsistently placed and formatted at others.

• Emphasize campus gateways, the primary points of arrival at each campus. Every gateway will have signage and landscaping that conveys the image of a modern research university and the unique identity of the campus. Currently some gateways lack signage, leaving visitors unsure of when they have arrived at UB.

• Distinguish between major and minor entrances depending on who is arriving and where they are going. Signage will be prominent at major entrances leading to key destinations for new visitors. Signage will be less prominent at minor entrances leading to less-visited destinations. Street name signage alone will mark access points used only by the UB community, drivers of service vehicles, and frequent visitors.

• Simplify vehicular navigation from the entrances to parking and drop-offs. To clarify travel routes, each parking facility or drop-off, the road leading to it, and the entrance to that road will share the same name. Signage will be smaller and simpler, and will not obstruct the views of drivers. Currently this signage is too large and too complex, and the naming of parking lots for nearby buildings does not provide most drivers with the information they need.

• Expand pedestrian navigation signage. New human-scaled signs at parking, drop-offs, transit stops, and pathway entries and cross roads will help guide pedestrians to their destinations. Currently there is very little of this signage on UB’s campuses. On North Campus, a comprehensive new signage program will clarify navigation of the extensive system of interior passageways.

• Improve destination information. New signs at buildings and major public spaces will mark those places with the appropriate scale, height, and character. Currently many identification signs are stark labels located high up on building facades.

• Give every building a recognizable street address. While most of the UB community can find its way to a given destination based on its relationship to other buildings, places, or key campus landmarks, street addresses are crucial to visitors, service providers, and emergency services – and to getting UB onto Global Positioning Service (GPS) maps. With the simplified campus roadway networks provided by the plan, each building will have a street address directly facing one of a limited number of campus arteries.
One University: Placemaking

A great university campus is not just a utilitarian facility for creating and transmitting knowledge. It is a place that inspires and connects people, engages them with each other and the world around, and generates memories and bonds that last for decades. More than its logo or its leadership, a university’s campus is its face to the world. To fulfill its mission, a great university campus must be sociaizable, sustainable, beautiful, accessible, and lovable.

Our campuses have all the necessary elements to be great. They have abundant historical and natural assets, long-established favorite places, deep roots in their surrounding communities, and a strong underlying physical organization that can support change. And change is needed. While our campuses have the necessary elements to become great, in their current condition many of these elements cannot fully support the vision of academic excellence set forth by UB 2020, regardless of how much we grow.

The plan’s placemaking strategies build on the best of UB – our values and ideas as well as our physical assets – to make each of our campuses great while carefully managing university resources. To this end, the plan proposes targeted investments in enhanced campus character, great public spaces, and revitalized landscapes, guided by three basic concepts:

- **Campus integrity.** The uniqueness and coherence of each of our campuses has been eroded over time by short-sighted planning, temporary construction, and neglect, leaving our campus places fragmented and forlorn, and our natural assets compromised and unable to sustain themselves. The individual physical improvements of the plan must work together to preserve and enhance the essential character of each campus, and contribute to making each campus a more cohesive, more functional whole.

- **Social spaces.** Other than our libraries and dining venues, our campuses have few indoor places and fewer outdoor spaces that inspire spontaneous socializing. Part of this is due to the lack of informal learning spaces or the dominance of cars in our outdoor spaces. But part is due to the current design of our buildings and pedestrian spaces, many of which lack the beauty, comfort, and combined sense of both enclosure and openness that encourage people to stop, linger, and talk.

- **Great public spaces.** At North and South campuses, there’s no way to shelter the entire UB community through every moment of the day during our longer winter season. But we can create both indoor and outdoor spaces that take advantage of the sun, fill these spaces with year-round activity, and use the landscape to block wind and reduce snowdrifts, making our campuses more comfortable and more fun during the winter. See the sidebar for more details on the plan’s approach to the winter campus.

The following university-wide strategies build on these concepts to transform our campuses into great places to work, study, visit, and live.

**ENHANCE CAMPUS CHARACTER.**

Most great universities have only one campus – only one opportunity to establish a unique and impressive physical presence. It is fitting that UB, with its diverse student body and broad reach in the region, has three such opportunities – each of them unique, each with a distinct identity and community focus. The plan seeks to breathe new life into each of UB’s campuses with an equally strong and distinctive identity by making the most of existing physical assets and creating new interstitial facilities, place names, and campus landmarks.

- **Conserve natural assets.** While human-built and not strictly “natural,” features such as Lake LaSalle on North Campus and the parks-like Main Street frontage on South Campus give relief from the built-up character of the Buffalo region and provide much of the appeal of the campuses. The plan’s general approach to these features is to maximize opportunities for naturalization in order to reduce maintenance costs, create healthy ecosystems for native flora and fauna, increase ecological services such as stormwater management, and make these features more attractive for recreational use. These strategies are discussed in more detail in Revitalized Campus Landscapes below.

**THE WINTER CAMPUS**

Throughout the process of developing the plan, we heard a lot from the UB community about Buffalo’s winter weather. Many people sought more sheltered bridges, tunnels, and corridors between buildings on every campus, such as those connecting parts of the academic core on North Campus. We also heard from people who wanted to spend more time outdoors during the winter, but were frustrated by the lack of anything to do. We had extensive consultations with those who maintain UB’s campuses about the challenges they face in keeping roadways, parking lots, and pathways clear of ice and snow.

Sheltered connections have a number of limitations. They’re expensive; they’re redundant, since they must necessarily supplement building exits and entrances at street level required by code; and they can be difficult or impossible to integrate into existing buildings, particularly historic buildings, without significantly compromising interior spaces and exterior appearances. Perhaps even more important for our campuses, sheltered connections can rob the surrounding outdoor spaces of activity, leaving them feeling bleak and unsafe. This is a particular drawback for the new retailers, dining franchises, and competitive facilities we hope to attract to our campuses.

Despite these disadvantages, sheltered connections can be useful, and new connections are provided on every UB campus. The long, windblown stretch on North Campus between the Ellicott Complex and the academic core will not have a single continuous connection, but a series of glassed-in arcades across the fronts of several buildings, separated by brief outdoor spaces. This model balances comfort and convenience with an active street life and the viability of commercial enterprises. On South Campus, the long stretch across Clark Lawn between the heart of the campus and Parker and Kappa halls will be shortened by new additions to Hayes Hall and Clark Hall, and eventually by new buildings along Clark Lawn itself. Most outdoor pedestrian routes and central gathering spaces will also be sheltered by the careful placement of new buildings and new windbreaks – stands of conifer trees specially designed to block wind. Recommendations from a 2002 study that tested a scale model of North Campus in a wind and snow simulation tank will finally be implemented, including some new campus in particularly problematic locations. Where possible, pathways will be shifted to maximize their exposure to winter sunlight. And glassy new winter gardens and fireside lounges will provide comfortable indoor settings for watching the winter weather.

For those who see winter as the season for ice-skating, pickup hockey and broomball games, cross-country skiing, snowshoeing, winter biking, and snowball fights, UB will offer new outdoor skating surfaces, trails, and sheltered open spaces on North and South campuses. A new system of designating and designing pathways will make it easier for UB staff to focus its snow-clearing efforts, new trees and meadows will help minimize snowdrifts, and porous pavements and alternative de-icing treatments will reduce ice buildup while reducing costs.

While implementation of the plan will enable UB’s students, faculty, and staff to remain indoors as much as possible, it will also give them new reasons to stay out in the cold.
LANDMARKS ON UB’S CAMPUSES

Baird Point, North Campus
Hayes Hall clock tower, South Campus
Buffalo sculpture, North Campus

MAKE GREAT PUBLIC SPACES.

Public spaces are the places where the university as a community of people becomes visible to itself on a daily basis. These are the lawns, quadrangles, plazas, and courtyards, the pathways, corridors, grand foyers, and rotundas, through which people move and where they gather, mix, socialize, exchange ideas, and seek relaxation from the pressures of academic life. Great public spaces on a university campus are clearly organized, constantly used, and well-loved. Taken together, the outdoor and indoor public spaces on a campus constitute the public realm. Although the public realm at UB is where most students, faculty, and staff spend an important part of their workday, it has not been designed as great public space. Instead, much of the public realm at UB is leftover space and recognizable neighborhoods or precincts. Under the plan, landscapes, the reorganization of roadways, parking lots, and pathways, the removal of obsolete buildings, and the careful siting and design of new buildings will restore clarity to the open space pattern of each campus, and reinforce the integrity of each of the existing open space types shown above.

• Respect existing campus axes, symmetries, alignments, and views to preserve the distinct character of each campus or precinct, maintain a basic level of clarity and order in the campus setting, and improve wayfinding.
• Preserve pedestrian circulation. Existing routes will be reinforced, extended, and linked in order to simplify wayfinding and direct pedestrian activity where it can enliven outdoor spaces and establish a greater sense of safety and security.
• Connect campus cores to campus edges to encourage campus-community connections and link the academic life of the core to the active and passive recreational opportunities of the campus edge.
• Shape and enclose exterior spaces. New buildings, additions, and roadways will define exterior spaces in accordance with the hierarchy of open spaces on each campus.
• Reinforce the existing hierarchy of open spaces. Each UB campus is arranged around a unique pattern of outdoor public spaces intended to help orient people, organize different kinds of activity, and sub-divide the campus into more intimate and recognizable neighborhoods or precincts. Under the plan, landscaping, the reorganization of roadways, parking lots, and pathways, the removal of obsolete buildings, and the careful siting and design of new buildings will restore clarity to the open space pattern of each campus, and reinforce the integrity of each of the existing open space types shown above.

The plan will gener-ally make many new naming opportunities that, like the names of existing campus buildings, public spaces, and roads, can honor donors and others who have contributed to UB and the region. Most of the name changes and new names illustrated in the plan should be considered temporary placeholders. UB will establish a committee on place naming to ensure that campus place names continue to make sense for their context and possess a memorable quality that invests them with meaning and longevity. See the Technical Guide on Signage and Wayfinding in the appendix for more details.

Develop and implement an interpretive plan. A new university-wide interpretive plan is needed to celebrate and enhance the appreciation of UB’s heritage both within and outside of the university. Physical elements of the plan could include outdoor displays and specially marked pathways to help people understand the changing role of UB’s buildings and landscapes in the evolution of the university, and plaques explaining the origins of building names, most of which refer to important figures in the history of UB and the region.

Create memorable place names. The plan will gener-ally make many new naming opportunities that, like the names of existing campus buildings, public spaces, and roads, can honor donors and others who have contributed to UB and the region. Most of the name changes and new names illustrated in the plan should be considered temporary placeholders. UB will establish a committee on place naming to ensure that campus place names continue to make sense for their context and possess a memorable quality that invests them with meaning and longevity. See the Technical Guide on Signage and Wayfinding in the appendix for more details.

Plazas, or spaces defined by pedestrian circulation, will provide lively social environments and the “front doors” to our campuses. Currently our plazas are mostly barren and unwelcoming, and do not effectively accommodate arrivals by car or transit. Instead, much of the public realm at UB is leftover space and recognizable neighborhoods or precincts. Under the plan, landscapes, the reorganization of roadways, parking lots, and pathways, the removal of obsolete buildings, and the careful siting and design of new buildings will restore clarity to the open space pattern of each campus, and reinforce the integrity of each of the existing open space types shown above.

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The siting of new buildings and additions will be guided by the following general principles:

• Limit construction to already developed areas such as existing parking lots, former building sites, and other previously disturbed areas in order to minimize site impacts and maximize the efficiency of existing infrastructure.
• Create and strengthen distinct campus precincts to help personalize the scale of the campus, organize growth, and enhance departmental identity. In general, each precinct will be organized around one or more central open spaces.
Enhance the pedestrian experience. People are the most essential element of the public realm. The following actions will improve the function and increase the active use of our public spaces throughout the year:

- **Design for microclimate improvement.** New windbreaks, snow traps, and canopies will be used to attenuate winds and reduce the amount of fallen snow blown onto campus roadways and pathways from adjacent open areas, thereby increasing comfort for pedestrians and reducing snow removal costs for UB.

- **Connect indoor and outdoor spaces.** The increased and strategic use of glass in new and existing buildings will extend views, reduce lighting costs, and lend a greater sense of activity and security to our campuses year-round.

- **Emphasize building entries.** New or renovated building entries will be designed with appropriate architectural details, transparency, and lighting to create a welcoming environment, aid in wayfinding, and provide a sense of destination.

- **De-emphasize services and utilities.** Space for deliveries, waste removal, and other services will be incorporated into the envelope of new buildings and, where possible, relocated to parts of existing buildings that are isolated from pedestrian traffic.

- **Extend and improve sheltered connections.** New connections will be designed to preserve at-grade pedestrian circulation and visibility. See The Winter Campus sidebar earlier in this chapter for more on the plan’s approach to sheltered connections.

- **Provide universal accessibility.** A public space cannot be great unless it is accessible to all. Every public part of our campuses will provide a reasonable accommodation to people with disabilities using the principles of universal design. They can shield pedestrians from wind and snow, cleanse and absorb runoff from rainfall and snowmelt, and sequester carbon dioxide released from on-campus vehicles and other sources.

Unfortunately, the majority of UB’s campus landscapes are covered by lawn, which does none of these things, and requires extensive maintenance that is both expensive for UB and potentially damaging to the environment. And the other predominant landscapes on our campuses—forests and isolated stands of trees, creekside and lakeshore habitats, ornamental plantings, and a “natural regeneration area” on North Campus—are not thriving, despite extensive carstaking efforts.

The following actions will balance an increased level of capital investment in landscape construction and plant establishment with reduced long-term maintenance and irrigation costs, while making our campuses more beautiful, functional, and comfortable.

**REVITALIZE CAMPUS LANDSCAPES.** In addition to visually enlivening outdoor spaces year-round, well-designed campus landscapes can provide a wide array of what might be called environmental services. They can shield pedestrians from wind and snow, cleanse and absorb runoff from rainfall and snowmelt, and sequester carbon dioxide released from on-campus vehicles and other sources.

- **Provide self-sustaining campus ecosystems.** Long ago, the land now occupied by our campuses sustained native ecosystems that did not require “maintenance” to stay healthy. While we can’t recreate these conditions—our campuses have been altered too much over the years—we can select plants to mimic the natural processes of these systems in order to minimize maintenance requirements and maximize plant health, while also serving the practical and aesthetic needs of a beautiful, active university campus. Our campus landscapes will not just look good—they will function well, and serve us well.

Each part of our campuses will be planted with a specific ecosystem, or plant community, based on the desired uses and ecological services of that area. The following ecotopes, each of which includes a broad range of plant species that can be selected to match a particular site’s soil, water, and micro-climate conditions, were developed specifically for UB. For more details on how these ecotopes will restore natural processes to our campuses and, over-time, become more self-sustaining, see the Technical Guide on Plants in the appendix.

- **Tree cover** can be tailored to three specific purposes: reforestation, for improving the density and health of existing stands of trees or creating new forested or park-like areas at campus edges; wind attenuation, for creating windbreaks and snow traps, and pluken making, for lining campus streets and defining the edges of open spaces. Tree cover planted under the plan will mix fast- and slow-growing species to provide both quick improvements and longevity.

- **Lawn** will continue to cover substantial parts of our campus core areas, recreation fields, and park-like spaces, but will include a mix of species that can withstand a broader range of sun exposures, irrigation levels, and pedestrian traffic. We will feature specialized soils and plant species to add variety to selected areas that do not need to look pristine.

- **Alternative ground cover** will replace lawn in campus core areas to provide greater visual interest through all four seasons. Compared to lawn, alternative ground cover is more expensive to install but absorbs more rainwater, has lower irrigation needs and more environmentally benign maintenance needs, and better tolerates shade and exposure to salt used to keep nearby paths and roadways free of ice.

- **Meadow** will replace lawn in large unoccupied areas to provide a natural edge to forests and creekside or lakeshore habitats. Meadow benefits similar to those of alternative ground cover but has minimal maintenance needs, supports a wider range of fauna, and keeps fallen snow from drifting onto roadways and campus core areas. Unlike the natural regeneration area on North Campus, meadows planted under the plan will include a wider range of both herbaceous and woody native species and will be supported by the soil improvements described below.

- **Rain gardens and bioswales** will feature specialized soils and plant species to filter pollution from rainwater and snowmelt before it is absorbed into the earth. These intensively designed landscapes, which require no irrigation, will be installed alongside pathways, roadways, and parking lots to collect and cleanse polluted and salt-laden water before it can reach municipal systems or natural water bodies.

- **Detention basins,** similar to rain garden and bioswales but larger and more closely resembling wetland habitats, will be installed in forested areas, meadows, and lawns at campus edges to provide habitat support while also capturing, detaining, and absorbing large volumes of water from rooftops, particularly during the first hours of a heavy rainfall. Like rain gardens and bioswales, they will be designed to absorb all standing water within 72 hours to prevent mosquito breeding.

- **Lake edge restoration plantings,** similar to Lake LaSalle on North Campus and new retention ponds proposed for South Campus, will stabilize shorelines, slow and filter the flow of rainwater and snowmelt runoff into the water bodies, and help support desirable fauna such as birds, fish, and amphibians. Different species will be planted depending on whether the water body is bordered by trees or meadow.

- **Improve campus slopes.** Tress and other plantings on our campuses are severely challenged by poor soil conditions—especially on North Campus, where extensive earthmoving in the early 1970s mixed the loose, silty organic materials of the top soil layer with the dense, root-resistant clay of lower layers. Other areas have absorbed large amounts of de-icing salt. Where these problems are worst, existing soils will be broken up, mixed with organic additives, and planted with harder species that can thrive in difficult circumstances and help condition the soil to support greater horticultural diversity over time. See the Technical Guide on Soils in the appendix for more detail on specific soil problems and solutions.
Minimize stormwater impacts. Stormwater is rain and snowmelt runoff from roofs, paved surfaces, and lawns that is not absorbed into the ground. It may carry fertilizer, litter, motor oil, and rock salt from lawns, streets, and parking lots into municipal sewers or natural water bodies. Surge in stormwater volumes due to heavy rainfall can cause erosion and overwhelm municipal water treatment facilities, leading to the direct release of sewage into our rivers and lakes. The following new landscape treatments will be used to reduce the volume and increase the quality of stormwater flows from our campuses:

- Porous pavements: The impermeable paving on many existing parking lots and pathways will be replaced with materials that appear and function the same as standard asphalt or pavers but allow water to percolate into the soil before or be diverted into temporary storage. See the sidebar for more details.

- Green roofs: Short, low-maintenance plant species in light-weight soil will be installed on many new buildings – including the South Elliot housing complex – and some existing buildings that will undergo major renovations. In addition to absorbing some stormwater, green roofs can significantly reduce building air-conditioning costs by shading roof surfaces from the sun and cooling roof surfaces through transpiration.

- Detention basins and retention ponds: Where stormwater flows from rooftops, which are relatively clean, it will be diverted to detention basins for absorption into the ground (see previous page), or to retention ponds that can also be used for ice skating during the winter.

- Tree trenches: Where stormwater flows from walkways, which may carry rock salt in winter but are otherwise clean, it will be collected in shallow, covered trenches alongside the walkways for use in irrigating adjacent trees.

- Rain gardens and bioswales: Where stormwater flows from lawns, parking lots, streets, and other more polluted surfaces, it will be collected in rain gardens and bioswales for filtering, infiltration, and transpiration, as described in the sidebar.

-Harness sustainable sources for irrigation. The rooftops of some new and renovated buildings will drain into cisterns for the irrigation of adjacent landscapes. A new greenhouse facility proposed for North Campus could also include a system that collects water from nearby toilets and food sinks, treats it with a combination of specialized plants, sand filters, and microbes, and re-uses the end products – sludge and “polished” water – to help fertilize and irrigate greenhouse plants or other campus landscapes.

- Rationalize campus hardscapes. In order to clarify pathways use, unify the appearance of each campus, signal the prioritization of pedestrians while maintaining emergency access, and reduce the total amount of paved surface on our campuses, all on-campus pathways will be designed to fit within one of three general categories, each with its own range of widths, materials, and maintenance regimens (see diagram above.)

- Reduce salt application. The rock salt used to de-ice our 300 acres of paved parking lots, roads, and walkways makes its way into our soils, where in some locations it raises the pH level so high that no plants will grow, and into regional waterways, where salinization threatens the entire Great Lakes ecosystem. Salting also accelerates the normal freeze-thaw cycle that breaks down pavements, and it corrodes concrete structures, metal artefacts, furnishings, and vehicles. The following actions will reduce our use of rock salt:

  - Reduce paved surfaces through the reconfiguration of roadways and pathways and the addition of larger planted areas to our plazas.
  - Leave “desire paths” unplowed. The narrowest, most non-essential pedestrian pathways – the diagonal shortcuts also known as ‘desire paths’ – will be left unplowed.
  - Use porous pavements. See sidebar on facing page.

- Porous pavements: The narrowest, most non-essential pedestrian pathways – the diagonal shortcuts also known as ‘desire paths’ – will be left unplowed.

- Use porous pavements. See sidebar on facing page.

- Porous surfacess. Calcium magnesium acetate or carbohydrate solutions, combined with sand, can effectively minimize or even replace rock salt on secondary pathways.

CONCLUSION

This chapter should be understood as a conceptual framework for improving the university’s physical assets as a whole. The following chapters detail the application of these university-wide strategies to each of UB’s three campuses. Some strategies that will apply equally across the campuses — such as the updating of UB’s guidelines for formal instructional spaces, the development of some TDM measures, and improvements toward universal accessibility — are not further elaborated. Most strategies, however — particularly those that fall under placemaking — will be implemented in very different ways on the three campuses.

Further work is required to advance many of this chapter’s university-wide strategies to the point at which they can be fully implemented. UB will need to create new organizational bodies to administer the learning landscape, curator public art, and oversee the naming of campus places. Additional study is required to develop new tools for classroom scheduling under a mixed multi-space model, to project quantitative demand figures for dining venues and on-campus housing, to locate shuttle stops, and to measure the effects of proposed TDM measures such as prohibiting freshman parking on campus. Ongoing coordination with UB’s partners will include working with the NFTA on some TDM and transit improvement measures, with the NYS DOT on signage and vanpools, with SUNY on financing models for housing and parking garages, and with the faculty and staff unions on TDM measures such as financial incentives and proximity parking.

This additional work will take time and effort, but it is doable, and some of it has already begun. The level of effort required, and the learning curve to be traversed, will be substantial, but so will the rewards. If they are implemented, UB’s constituent parts will become more than multiple schools, programs, and resources on multiple campuses. Refocused on discovering, fully integrated through connecting, and enlivened by placemaking, they will truly comprise one university: strengthened by consistency, broadened by choice, and united with itself and its community.
More than 40 years ago, the coalition of University at Buffalo, SUNY, and New York state government officials who engineered the creation of a new campus in rural Amherst imagined a “University of the 21st Century.” UB’s Board of Trustees charged the planning team – composed of some of the nation’s most prestigious architectural firms – with transforming 1,200 acres of farmland into “a community of scholars which enjoys the full complexity and diversity of large size, while providing intellectual and social centers with which the individual may closely identify.” It was to be “the largest single architectural undertaking that has ever been done in this country,” said Robert L. Ketter, UB vice president for facilities planning, who would later serve as university president from 1970 to 1982.

Today, much of what was ultimately built is believed by some to represent the most misguided impulses of 1960s modernist design: a campus located far from the vibrant city, full of bunker-like structures, laced with high-speed roads and vast concrete plazas, and laid out as a monument to logic and rationalism with a geometry similar to that of early silicon chips. Even as Amherst has grown into a thriving suburb with commercial centers of its own, those destinations are almost inaccessible from campus to anyone without a car. Much of the expansive landscape surrounding the campus core remains stunted by poor growing conditions. Many parts of North Campus can feel cold and isolated even on the sunniest of days.

The goal of the Comprehensive Physical Plan for North Campus is to improve and build on its essential assets – the dense academic core, Lake Lasalle, and the ring of naturalized lands that surround them – to create a more beautiful, more active, more welcoming campus. It will be better connected to Amherst and to UB’s other campuses. It will feel more unified as a place for learning, research, and work, even as its architecture and landscape become more intimate and more environmentally and socially sustainable. North Campus will once again be a symbol of UB’s dreams for the future.
HISTORY AND LEGACY OF THE 1970 COMPREHENSIVE PLAN

In 1968, the State University Construction Fund commissioned a comprehensive campus plan for its newly acquired property in Amherst. The culmination of two and a half years of planning, the vision set forth by the firm of Sasaki, Dawson, Demay Associates was ambitious: 10.6 million gross square feet (GSF) of buildings to house 32,500 full-time students and an overall campus population of 50,000. The site plan was organized around an academic core with a linear east-west circulation space called the Academic Spine. Seven “activity corridors” connected it to outlying residential colleges, the perimeter of the campus, and the surrounding community.

By 1980, 10 years after the acceptance of the plan, its pattern was established on the campus. The Spine was well defined, with Capen Hall (1977) – home of the office of the president, as well as the location for the undergraduate library – at the center of the campus. The two residence halls, Governors Complex (1973) and Ellicott Complex (1974), established remote nodes of residential life separate from the growing academic core. The roadway network of three rings – Audubon Parkway, White-Hadley-Augspurger roads, and Putnam Way – was complete, providing convenient access for the extensive bus service required to maintain connections between the new campus and the continuing activities on South Campus.

In the following decade the core filled out and expanded to the east, with development of Alumni Arena (1982), the new Student Activities Center (1985, expanded in 1992 to become the Student Union), and Parcel B, several acres on the west shore of Lake LaSalle reserved for commercial development to serve the campus community. The University Bookstore (1982) and UB Commons (1990) on Parcel B created a focus for commercial activity on the campus, yet turned their backs to the lake. The university also began to reach beyond its boundaries, building Baird Research Park (1982) on a parcel just off campus on Sweet Home Road.

As of 2007, a total of 6.6 million GSF on North Campus accommodated a daytime campus population of 28,000 students, faculty, and staff. The most notable growth since the late 1990s has been the development of low-rise student housing on the campus periphery: Hadley Village (1999), South Lake Village (2000), Flint Village (2001) and Creekside Village (2002), as well as Flickinger Court (1998), just off campus across Sweet Home Road. While apartment living in the villages is enjoyed by upperclassmen and graduate students, the location of these suburban-style developments has pushed residential life out to the perimeter of campus, draining vital activity from the core in the evenings and on weekends.
ASSETS AND CHALLENGES

Despite its built consequences, the 1970 Comprehensive Campus Plan had some solid foundations. A dense Academic Spine of buildings was intended to create a bustling center of academic and administrative and support functions interspersed with enclosed “sub-center” gathering places, while campus life spaces were to be arrayed along activity corridors reaching deep into the naturalized periphery of the site. A comprehensive “faculty street” was to combine pedestrian, bike, and transit pathways in the campus core, with parking concentrated in garages conveniently located near the junctures of the activity corridors and the Spine. Lake LaSalle, ringed by residential, recreational, and commercial development, was to be central to campus life.

Eventually, much of this plan was built, and changes over the years have brought additional assets to the campus. The scenic qualities of Lake LaSalle have been enhanced by Baird Point, with columns salvaged from the demolished downtown Buffalo Federal Reserve Bank and artistically installed thanks to alumni donations. The Elliott Trail System, initiated as part of a flood control system by the U.S. Army Corps of Engineers and further extended onto university property by the Town of Amherst, is a recreational amenity enjoyed by both the UB community and the surrounding neighborhoods. Development of the neighborhoods themselves, spurred by the presence of UB, has created significant off-campus assets nearby, offering housing, employment, retail, and entertainment opportunities to students, faculty, and staff.

But some of the 1970 plan was never built, and much of what was built departed in small but ultimately crucial ways from the plan. The activity corridors were never completed, leaving Governors Complex and, to a greater extent, Eliot Complex, isolated from the Spine. The development of the residential villages provided no opportunity for students to live in - and bring evening and weekend life to - the academic core. The garages were never built, so the core is surrounded by a sea of parking that is uninviting and disorienting. Some students drive from on-campus housing to the core, daunted by a walk that can feel too long and unsafe because it crosses multiple roadways and unfriendly, unpopulated open spaces and parking lots.

As built, the comprehensive roadway network of the 1970 plan created an inner loop that is too constraining, a middle loop that is not connected with itself, and an outer loop where cars go too fast. Audubon Parkway, the outer loop, was designed for a heavier traffic volume than it handles. Its width and low volume encourage speeds higher than the posted limits and make for dangerous crossings, creating a challenge to connecting the campus to both its perimeter areas and the surrounding neighborhoods. The middle loop of White, Hadley, and Augspurger roads do not connect to Lee Road, complicating vehicular circulation around the core. And the innermost loop or faculty street, Putnam Way, favors private cars, service vehicles, and parking rather than walking, biking, and transit, constricting access to the core of the campus.

Lake LaSalle represents perhaps the greatest missed opportunity of the 1970 plan, which proposed a great outdoor plaza at the junction between the lake, the Spine, and a full-fledged activity corridor of campus life activities connecting the Spine to the Eliot Complex. Instead, there is a grassy slope between the center for the Arts and UB Commons that has no programmatic connection to either building. It is used for informal recreation, but is perceived as a leftover space rather than a deliberately shaped place. To the immediate north, UB Commons and the University Bookstore placed their front doors in the direction of student activity, but blocked views and access to the lake. And the lake itself provides a pretty backdrop, but its water quality limits recreational use, and with the exception of Baird Point its shores are often empty.

The Comprehensive Physical Plan addresses each of these challenges as an opportunity for improvement. Roadways will be reorganized, parking will be concentrated, and more space will be devoted to walking, biking, and transit. To maintain the density and activity of the academic core, new building sites – including on-campus residences – will “thicken” the Spine. New housing and other campus life development will turn Lee Road into a campus “Main Street” connecting the Eliot Complex to the core. The crossroads of the Spine and Lee Road will become a beautiful, active place, the center of campus life outdoors. The outer ring of the campus, connected to a revitalized Lake LaSalle, will be preserved as a continuous band of parkland shared with the surrounding neighborhoods.

Challenges:
- The Spine is not connected to the lake.
- Each ring road has its deficiencies.

Frameworks for Campus Transformation:
- P e e n c o n n e c t i o n s e  t o t h e l a k e
- C o n n e c t t o t h e c o m m u n i t y
- C o n n e c t t o t h e l a k e
- E x t e n d t h e P r o m a n d e"
GROWTH, MIGRATION, AND TRANSFORMATION

CAMPUS GROWTH, CAMPUS PURPOSE

Under the plan, total North Campus program space will expand by approximately 2.2 million net assignable square feet (NASF; see definition above) to accommodate academic growth in the College of Arts and Sciences; School of Engineering and Applied Sciences; and School of Management as well as accompanying administrative and support program and campus life program. The schools of law, social work, and education will move to South Campus, as described in Chapter 2.

The campus life program will increase by 1.2 million NASF, representing more than half of total program growth for North Campus. This includes the housing required to accommodate an increased proportion of the total student body on campus, as well as new dining and student services and activities space. This program also includes some of the campus life facilities that UB’s peer institutions offer but UB lacks, including a field house for intercollegiate athletics and a combined recreation and wellness center.

Assessing the Existing Building Stock

All of the buildings built for UB on North Campus are less than 40 years old, and most have a relatively low Facility Condition Index (FCI), which compares the cost to modernize a building’s primary systems with the cost to replace it with a new building). Under the plan, most North Campus buildings will retain their primary use, but many will be renovated to add or improve spaces for gathering and collaborating, accommodate changing program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability. Only those buildings with a high FCI, those without a useful purpose or the potential for adaptive re-use, or those that stand in the way of program requirements, and raise energy performance and other measures of environmental sustainability.

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Ongoing investment in North Campus

A number of projects already in planning, design, or construction as part of the university’s 2008-2013 capital plan exemplify the major concepts of the Comprehensive Physical Plan.

The South Elliott housing development, slated for completion in 2011, begins to fill in the gap between the Eli- lict Complex and the Academic Spine, and is slated to co- ordinate with the extension of the Lee Road north of Audubon Parkway. A new School of Engineering and Applied Sci- ences building, scheduled for completion in 2012, will fill the northeastern corner of the Engineering Precinct (see following page) and frame a new quadrangle. And the first phase of the Heart of the Campus initiative (see Chapter 3) will, among other things, create a new enclosed corridor through Capen Hall that reinforces the north-south axis along the major approaches to this central destination.

Each of these projects is described in more detail in the following pages.
In the 1970 plan placed the academic core on land that lies above the Elicott and Biver Creek floodplains, and it is there that most new construction will occur. Despite its vast areas of unbuilt space, North Campus cannot – and should not – support unlimited development. Much of the campus is off-limits to construction, including officially designated easements around wetlands and waterways, roadway rights-of-way, or the presence of infrastructure below the ground. The plan reserves additional sites from development to protect open space, scenic views, water front access, playing fields, natural habitat, surfaces that filter and absorb stormwater, and other valuable features.

A proposed no-build zone varying in depth from 30 to 100 feet along the west and south edges of Lake LaSalle will reserve space for a landscaped shoreline with vistas and recreational access to the waterfront. On the northeast shoreline, another no-build zone will protect newly naturalized habitat between the lake and Ellicott Creek. Baird Point, a campus landmark, will be preserved as a park. Practice and playing fields east of UB Stadium, key assets in the Athletics Precinct, are also protected from future development.

The development framework for North Campus will also protect important sight lines and areas that provide order and views within the campus. The north-south axis of Flint and Hamilton roads will be kept open to maintain the view to Capen Hall, a visitor destination and center of campus activity. Similarly, framed views to Lake LaSalle and Baird Point – along White Road and from Lockwood Library, for example – will also be protected. New construction will preserve and further define the edges of Founders Promenade, extending it to the east and west as the central outdoor pedestrian corridor of the campus. All roadways within the core will incorporate generous building setbacks to allow for sidewalks and shared bike paths. At select locations, the outer, naturalized band of forest and meadows will penetrate the campus core by a series of “green fingers,” or pedestrian pathways lined with new plantings.
Skinnersville Road
Moody Terrace
Frontier Road
Newcomb Terrace
Chestnut Ridge Road
Lockport Expressway
Sweet Home Road
Rensch Road
Augspurger Road
Hadley Road
Webster Road
St. Rita's Lane
Forest Road
Stahl Road
Heim Road
W. Klein Road
Cottonwood Drive
Millersport Highway
Maple Road
Sprague Road
Service Center Road
Flint Road
White Road

EXISTING CAMPUS PLAN

Chapter 4 — North Campus
New buildings, quadrangles, and courtyards will support interdisciplinary collaboration in an active pedestrian campus core. The Academic Spine will be “thickened” with new academic buildings to the north and south, including four new natural sciences buildings, three new engineering buildings, a new humanities center, and a new building for the School of Management. Under the heart of the Campus initiative, Lockwood Library and Capen, Norton, and Talbert halls will be transformed with prominent new entries, improved interior circulation, new casual dining venues and learning landscape spaces, and new glass-enclosed courtyards and arcades.

The Spine will also be lengthened by an extension of Founders Promenade to the east, framed by a new university club hosting alumni, faculty and staff events and a new arts plaza with academic space, exhibit and performance venues, and residences for visiting artists. These buildings will frame the southern edge of the Oval, a grand new lawn connecting the Spine to Lake LaSalle, with steps leading down to the shallow waters of a new “inner harbor.” An outfitter providing small craft during warmer weather, and skating sports equipment during the winter, will overlook the harbor from a new recreation and wellness center framing the north edge of the Oval.

A new campus crossroads will be formed by the Oval, recreation and wellness center, Student Union, and a new learning-learning quarter with student residences atop a multi-modal transit pavilion and relocated University Bookstore and retail and dining venues from LB Commons. The living-learning quarter will anchor a new campus “Main Street,” with additional student residences and a hotel and conference center lining Lou Road. The new South Eliot housing will complete the connection between the Academic Spine and the long-isolated Eliot Complex. An extension of Webster Road will provide access to the undeveloped campus property to the east of Millersport Highway.

Fewer and narrower campus roadways with better crossings will prioritize walking and biking while rationalizing vehicular circulation. The removal of the inner carriage-way of Aubudon Parkway to slow traffic and improve pedestrian safety will create room for a new Audubon greenway. Trails through the naturalized greenway landscape will link new athletics and recreational facilities, including a new field house and tennis center, with a revitalized Lake LaSalle, the Eliot Trail System, and a new photovoltaic solar array that will provide 1.1 megawatts of electricity to the campus. With extensive stormwater management systems, new facilities to support transit, bicycling, and walking, and a renovated Center for Tomorrow building hosting research initiatives and public educational programs about the array and other alternative energy sources, North Campus will be a model for sustainable campus development.
North Campus: Discovering

Under the plan, the College of Arts and Sciences, School of Engineering and Applied Sciences (SEAS), and School of Management will remain on North Campus, while other schools migrate to UB’s South and Downtown campuses. While the academic makeup of North Campus will be simpler, the relationships among the remaining schools will be strengthened in support of UB’s drive for academic excellence based on interdisciplinary collaboration. At the same time, academic facilities on North Campus will be thoughtfully integrated with campus life facilities, fulfilling throughout the campus the promise of the mixed-use “living-learning” environment that was initiated at the Elicott Complex nearly 40 years ago.

FACILITATE INTERDISCIPLINARY COLLABORATION.

► Reorganize the campuses around interdisciplinary work. The simplified combination of schools on North Campus will yield more focused advances in several of the strategic strengths of UB 2020, including “Artistic Expression and Performing Arts,” “Cultures and Texts,” “Integrated Nanostructured Systems,” and “Extreme Events: Mitigation and Response.”

► Develop shareable resources and design spaces for collaborative research. In addition to the central libraries in Capen Hall and Lockwood Library, the schools on North Campus will share unique new facilities designed to support collaborative interdisciplinary work. In addition to a new SEAS building, scheduled for completion in 2012, these include:
  • A humanities center with a gallery, research space, and meeting and performance hall, connected to the Heart of the Campus programs (see following pages) in Capen Hall.
  • A research left with leasable, flexible left spaces that will allow for customized experimentation across disciplines in the natural sciences and engineering. The balance of this facility, which may be integrated into an academic building in one of the Natural Sciences precincts, will be designed around areas for interaction and information sharing, such as conference rooms, a gallery, and a café.
  • An arts left with studies, teaching facilities, galleries, and a café, primarily supporting interdisciplinary work in the visual arts. The upper floors of this facility, which will also provide basic expansion space for departments in the arts and humanities, could include live-work loft spaces to attract visiting faculty or graduate students, allowing them to further their own study in close proximity to ground-breaking practitioners in their fields, and share the results with the UB community.

Prototypes for Mixed-Use Facilities

These two conceptual diagrams illustrate some of the ideas developed with input from UB faculty and staff for new facilities designed to maximize interdisciplinary collaboration.

Research left

• Leasable left spaces for faculty and staff.
• Faculty hub provides access to the technical and social services necessary for research.
• Stacking of conference and gallery spaces allows for the flexibility and interaction.

Arts left

• Ensures adaptable student excellence with “center of the room” flexibility for both.
• Artistic residences offer direct access to UB resources, students, and the marketplace.
• Arts studies can be transposed and incorporated for a blend of research and reaction to dynamic artistic and social change.
• Gallery focus campus. Open seasonally, this flexible gallery with accessible educational and public spaces will be located in the center of the campus.
• Arts cafe and gallery work together, offering formal and informal settings, a critique and mentoring environment.

SCHOOL OF ENGINEERING AND APPLIED SCIENCES

The new SEAS building between Jarvis and Kutter halls, scheduled for completion in 2012, will provide flexible space for faculty offices, classrooms, and four different types of laboratories for two academic departments under the same roof. With extensive shared and public spaces throughout and a multi-story atrium adding a sunny new quadrangle, the design of the new building encourages both intensive laboratory collaboration and spontaneous casual interaction.

[Courtesy: Perkins+Will Architects, PC]
HEART OF THE CAMPUS

The first phase of the Heart of the Campus initiative on North Campus will transform more than half of the space in Capen, Norton, and Talbert halls and Lockwood Library. As paper media are transferred to remote shelving facilities, each of these two “hearts” will be reorganized and renovated to create more functional combinations of academic, administration, and support, and campus life spaces.

Capen Hall, the central visitor destination for North Campus, will have more prominent, more welcoming entrances on its north and south sides facing vehicular drop-offs and parking. In addition to the existing admissions offices, Capen Hall will house a “service commons” of student support services, central spaces for the Honors College and Undergraduate Academics programs, offices for career services and academic development, and a more compact library. To either side, Norton and Talbert halls will house additional classroom, teaching, and study support space, student advising offices, and dining venues. The existing sunken courtyards at the junctions of Capen and Norton, and Capen and Talbert, will be enclosed with glass to become inviting winter gardens with central gathering spaces and vertical circulation ensnared by the adjacent dining and campus life functions. The multi-story glass enclosure of the the Capen-Norton courtyard will also serve as a “beacon” for the Heart of the Campus Precinct.

Lockwood Library, which houses the central library facility and a grand reading room for the campus, will add new cybernet, dining, classroom, teaching, and study support space, reorganized around a newly enclosed skylit central atrium. The existing colonnades along the west and south sides of the ground floor will also be enclosed with glass to provide a prominent new entry and lobby from Founders Promenade, as well as learning corridors and flexible seating.

SUPPORT WORLD-CLASS TEACHING.

North Campus needs more classroom space that is better located and more available to the entire university than it is now. Sixty-eight percent of all classroom seats at UB are there. But while classrooms in the academic core are fully used from morning to night, spaces in the outlying Ellicott Complex are underutilized. Meanwhile, more than half of the seats are departmentally controlled, including all but five seminar rooms. In order to support cross-disciplinary work and improve the efficiency of classroom use, some important adjustments are needed.

In the near term, the Heart of the Campus initiative will transform Capen, Norton, and Talbert halls and Lockwood Library into hubs of flexible classroom space with a range of sizes (see sidebar above). To support the continued need for larger instructional spaces, the plan also designates existing and new “classroom clusters” at several locations throughout the academic core. Utilization of both new and existing classroom clusters, including Knox Lecture Hall and Natural Sciences Lecture Halls, will be improved by renovating common spaces to provide class spaces for students and faculty to meet, prepare, or continue classroom discussions (see sidebar at right).

Instructional space managers at UB have developed an informal learning spaces. A full list of these “worst offender” classrooms is provided in Learning Landscape Campus Concepts Report, a supporting study in the appendix to the plan.

STIMULATE LEARNING EVERYWHERE ON OUR CAMPUSES.

▸ Support a range of faculty work arrangements.

New faculty hubs (see Chapter 3), providing bookable office and meeting space or “hotelling” for faculty members who move between campuses, will be embedded in each of the academic precincts on North Campus and will cater to discipline-specific needs. Faculty hubs will be located near informal dining and study spaces to provide more opportunities for socializing and collaboration.

▸ Support a range of teaching and learning activities and work styles.

At least one building in each academic precinct will house a hybrid combination of teaching, media, and tech support hubs (see Chapter 3), located adjacent to an existing or proposed classroom cluster, to support classroom learning with flexible and technology-rich space for faculty to experiment and hone teaching methods. Each precinct will also have more discipline-specific teaching spaces, such as labs, studios, or case study classrooms. The proposed research loft, humanities center, and arts loft (see above) will provide a range of alternative spaces for emerging modes of collaborative work.

▸ Provide a campus-wide system of convenient, comfortable places to study and relax before and after class.

The large and complex system of interior circulation pathways that allows continuous sheltered connections between most buildings in the academic core provides a wealth of opportunities to carve out space for study hubs, front porches, and learning corridors (see Chapter 3). In addition to providing needed informal study spaces, these renovations will also add recognizable landmarks to what can be a confusing interior circulation network. Several such spaces have already been provided in existing buildings under the Heart of the Campus initiative (see sidebar). And new facilities, such as the SEAS building to be completed in 2012, will house similar study spaces grouped to provide a core of activity for the surrounding precinct.

▸ Balance distribution of the learning landscape with concentration of resources.

The organization of North Campus into precincts allows for both distribution of learning landscape spaces to encompass all of the academic core, and concentration of spaces to create centers of activity and encourage streamlined management (see diagram on next page). Each precinct will feature a centrally located grouping of hubs, study spaces, food venues, and gathering places, located near existing assets such as classroom clusters and university libraries, with a distinct arrangement and design that will define the character of the precinct and inspire loyalty, like a favorite neighborhood coffee shop.

LEARNING LANDSCAPE PILOT PROJECT

Construction of the learning landscape on North Campus is already underway, providing a variety of informal settings and technology for collaborative or individual work, meeting, and socializing. New learning corridors adjacent to the classroom clusters in Knox Lecture Hall (completed in 2009 and shown above) and Natural Sciences Lecture Hall will make the under-used “extra” space in heavily trafficked corridors more friendly and useful. Learning landscape facilities in the South Ellicott housing development, slated for completion in 2011, will provide study rooms, lounges, and flexible gathering or classroom spaces to support an immersive living-learning environment.

Future view of Capen Hall and Founders Plaza from Flint Loop.
ENRICH CAMPUS LIFE.

North Campus has a full complement of campus life facilities, anchored by a Student Union teeming with activity. Yet while most of UB’s on-campus dining and housing facilities are located here, North Campus does not feel like a residential campus. While many of UB’s recreational facilities and all of its on-campus intercollegiate athletic facilities are located here, much of North Campus is not alive with recreational activity or UB Bull’s spirit. And while one of the region’s largest and busiest arts centers is located here, most of North Campus lacks reminders of our excellence in arts and culture. Under the plan, the strategic placement of new campus life facilities, and an enhanced public realm connecting them, will resolve these paradoxes and fulfill the potential of North Campus to be full of activity every day, night, and weekend.

ON-CAMPUS DINING

Provide more and better dining choices on campus and align dining with demand. To encourage gathering and lingering, new food venues on North Campus will be located convenient to where students study and go to classes and where faculty meet. At least one new or revamped dining venue with updated meal options and a “local” character will be located in each precinct, with a few special venues located in central locations. For example, the plan proposes a fireside lounge in the new Kiva Café in Baldy Hall, creating a winter-themed gathering place in the center of campus. A faculty-student pub at the new university club on the Oval will provide a place for discourse outside of the classroom, and bring evening activity into the core. And a university market (see Chapter 3) and café in the new recreation and wellness center will meet the demands of both the fitness crowd and the students living in the Elliott Complex and along Lee Road.

Further study will be required to determine the feasibility of these and other venues, which will be supported by planned growth in the on-campus student population as well as an anticipated increase in the number of visitors from Amherst and the Buffalo Niagara region to the expanded cultural, recreational, and retail offerings on North Campus. The plan locates many of these venues where they can take advantage of lake views or easy access from campus vehicular, bicycle, and pedestrian points of connection with the surrounding neighborhoods.

The addition of 2,300 student residents on North Campus (see On-Campus Housing below), however, will definitely require a significant increase in resident dining space. When the new South Elliott housing is occupied in 2011, the Red Jacket and Richmond dining halls in the Elliott Complex will be under great stress to provide adequate capacity. Campus Dining and Shops (CDS) is looking at ways to accommodate the additional demand operationally, but a renovation may be required, taking advantage of underused food court space and combining the two dining halls to create a space with 1,300 to 1,500 seats.

The proposed location of more than 900 beds in several new buildings along the new campus “Main Street” on Lee Road requires a new dining hall to supplement the options available at the Student Union and relocated UB Commons. And at the west end of the core, a dining hall in the 800-bed student residence proposed for the Natural Sciences North Precinct on the Governors B Lot is needed to supplement or even replace the basement-level Dovernois Dining Center, the least popular dining hall on campus. As noted above under the heading Development Sites, the privately managed venues of UB Commons will be relocated across Lee Road to a new living-learning quarter on the Furnas Lot. Other universities, in response to students’ desires for a wider array of menu options, have integrated, in a single facility, nationally branded retail outlets and local favorites, university-supported food courts, and a traditional dining hall. This model might serve as a precedent for dining options in this building, which could also house the new dining hall for the “Main Street” residences. The new hotel and conference center on Lee Road will provide an opportunity for a different kind of privately managed dining, oriented toward out-of-town visitors and guests of the university.

Adjust operations to maximize both patronage and efficiency. As described above, there will be at least three dining halls on North Campus, each requiring its own central kitchen: at the Elliott Complex, on Lee Road, and in the new residence in the Natural Sciences North Precinct. Well distributed across the campus, these facilities may also provide food preparation services for nearby CDS cafés and other venues. Restaurant kitchens at the proposed hotel and conference center and the university club will be able to provide centralized campus catering services.
ON-CAMPUS HOUSING

This plan sets a goal of increasing the percentage of on-campus residents on each campus. Having more student residents will make North Campus a much more attractive place—more lively throughout most of the day and week, and better able to support expanded dining and retail opportunities that can also attract off-campus patrons. The plan calls for the addition of 2,300 beds, mostly for undergraduates—an almost 40 percent increase to the current North Campus supply of 6,000 beds.

► Provide a full mix of housing types. Today, much of the housing on North Campus is provided by the villages, which offer apartment-style living to upperclassmen and graduate students. The graduate student demand for this housing is expected to decline as the professional schools migrate to South Campus. The concept is currently being designed to accommodate other undergraduate students. No new villages are planned. While demand for this housing has been strong, the villages built to date have several drawbacks: they occupy valuable campus land with a low-density, automobile-intensive use; they require the extension of costly infrastructure beyond the campus core; and they utilize typical suburban construction methods and materials, which are not expected to hold up to the rigors of sustained occupation by students. Beyond their projected 30-year life span, consideration should be given to replacing the villages with housing better integrated with the rest of campus.

The villages are also not well-suited to allow for 24-hour on-site supervision or to promote the socialization of freshmen and sophomores. To accommodate these students, the plan calls for new dormitory- and suite-style residences concentrated in two locations: in the Natural Sciences North Precinct, between the Governors Complex and the academic core; and along Lee Road, between the Ellicott Complex and the academic core. Unlike the Governors and Ellicott complexes, these new residences will feature ground-floor uses such as dining, retail, and learning landscapes. These spaces are oriented toward major pedestrian routes. This will project a sense of activity to surrounding spaces and connect residences to campus life. Unlike the villages, the new townhouses will bring density and activity to the core of the campus.

► Target housing to specific disciplines and explore mixed housing types. A single residence housing freshmen and sophomores on the lower floors, and housing upperclassmen in apartment-style units on the upper floors, could be a model for reducing members of the Undergraduate Academics to stay on campus throughout their undergraduate education. The presence of informal study, dining, retail, and academic space in the same building could attract tenants to faculty apartments, if a separate entrance is provided. This combination provides the model for the proposed living-learning quarter, a new mixed-use building adjacent to the Student Union on Lee Road.

► Create a living-learning environment and pursue more flexible financing models. The living-learning quarter will be the apotheosis of living-learning residences on North Campus, but such new residential buildings will feature an array of learning corridors, study nooks, and flexible classroom or gathering spaces to provide a campus-wide network of convenient, informal alternative to libraries and other central academic facilities. The Governors and Ellicott complexes will also have such spaces, made possible by the removal of under-utilized dining and academic programs. In addition to extending the learning landscape, these spaces can provide the basis for accessing new sources of funding for North Campus housing construction by strategically integrating academic support space with residences.

OFF-CAMPUS HOUSING

Students studying on North Campus have a wide range of off-campus housing options, including privately developed student-oriented housing complexes. UB will continue to work with private developers seeking to help meet the need for student housing near North Campus, but will seek to ensure that such housing is well-integrated with the surrounding neighborhoods and accompanied by appropriate support services, social spaces, and nearby retail and dining opportunities to prevent the creation of isolated student housing enclaves.

SOUTH ELLICOTT HOUSING

South Ellicott, projected to open in 2011, is a good example of current projects that advance the objectives of the Comprehensive Physical Plan. It was sited for access to dining and support services in the Ellicott Complex, and to begin to shorten the parceled walking distance from the Ellicott Complex to the Spines. The new building has also been aligned to allow for the northern extension of Lee Road, and designed to help shelter the walk from north to south. At the ground floor, a café, study lounges, multi-purpose teaching space, and learning corridors will integrate residential life with the learning landscape.

[Courtesy: Cannon Design]
ATHLETICS, RECREATION AND WELLNESS

Intercollegiate athletics have the power to bring attention to a great university and win the allegiance of community members to the institution. The UB Bulls’ appearance in the 2009 International Bowl in Toronto, and the swell of campus pride that it generated, is a prime example. The UB Bulls’ appearance in the 2009 International Bowl will provide approximately 250,000 GSF of indoor training facilities for the football and track-and-field teams. Planning and fundraising are under way for a field house and tennis center at the north end of UB Stadium. The field house will allow for year-round weather protection and will significantly expand the indoor training facilities for men’s and women’s sports, including football.

| Use natural assets for year-round recreation. The Buffalo-Niagara region’s long winters provide great opportunities for year-round outdoor recreation. On Lake LaSalle, a new “inner harbor” of shallow water near the recreation and wellness center will be safe for skating. The plan also proposes to extend a loop of the Elliott Trail System around the lake, and a second loop along Bierzer Creek and Aububon Parkway – through a new landscaped space called the Aububon greenway – creating a complete circuit around the campus that will be suitable for walking, running, and bicycling, as well as snowshoeing and cross-country skiing.

| Relocate wellness services. Today, students on North Campus must travel to Michael Hall on South Campus for student health support. In the future, Michael Hall will be demolished (see Chapter 5), and students will be served by a new comprehensive wellness facility incorporated into the North Campus recreation and wellness center. With a central campus location, easy access to inter-campus transit, and a full suite of counseling, student health, wellness education, and occupational therapy services, the North Campus recreation and wellness center will be a significant improvement over the wellness center in Michael Hall.

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| ARTS AND CULTURE

| Provide new publicly accessible arts and cultural facilities. The new humanities center along with galleries and performance spaces in the arts loft will be among the new cultural facilities on North Campus. Access to the Center for the Arts (CFA), a significant cultural destination for UB and the Buffalo-Niagara region, will be enhanced by improvements to Coventry Loop and a prominent new building entrance to the west, located at the terminus of the new eastern extension of Founders Promenade. Together, the new CFA entrance, the adjoining arts lofts, a redesigned Coventry Loop landscape, and the creation of an outdoor sculpture garden at Bierzer Point – all adjacent to the Oval – will expand the Arts and Humanities Precinct into a more vibrant, more central part of North Campus than it is today.

| Integrate arts and culture into campus life. New outdoor spaces such as the Oval, and indoor spaces such as the winter gardens proposed for the recreation and wellness center and the sunken courtyard at Capen Hall, will provide informal venues for performance. And under the guidance of a new university-wide public art committee, rotating or permanent outdoor installations will be located to mark major decision points in navigating the campus (see Connectivity below), or key points of interest (see Placemaking below).
**North Campus: Connecting**

North Campus presents both the greatest challenge and the greatest potential for improving connections at UB. Its initial placement and design were intended in part to create a fully self-contained campus on a “greenfield” property that offered unconstrained growth. Yet the growth of North Campus has been, and will continue to be, closely tied to the development of the Town of Amherst and the Main Street-Millersport Highway regional corridor.

Making the most of that growth, and making sure that it benefits both UB and our neighbors, will require stronger physical and programmatic relationships with the Town of Amherst and better access to a broader array of convenient transportation options. The plan will build on existing resources and relationships to turn North Campus, long considered a place apart from the Town of Amherst, into a center of economic, educational, cultural, and recreational activity for the surrounding neighborhoods, a hub of local and regional transportation networks, and a northern anchor for the spine that UB is forming through Buffalo and its suburbs.

**BRING US CLOSER TO OUR NEIGHBORS.**

- Provide more community-oriented spaces. North Campus provides many recreational and cultural resources to the surrounding communities. UB welcomed the Town of Amherst to extend the Ellicott Trail System onto campus property, building on previous work by the U.S. Army Corps of Engineers; the Center for the Arts, Alumni Arena, and UB Stadium host athletic and cultural events year round; and the annual Independence Day fireworks show at Lake LaSalle, co-sponsored with the Town of Amherst, has become a community tradition.

- New facilities will provide additional community-oriented resources, such as a revitalized Lake LaSalle with a boathouse and marina, trails for walking, jogging, biking, and cross-country skiing, park-like lawns, and expanded gallery and performance spaces at the humanities center and arts left. New restaurants at the university club and the hotel and conference center will provide an evening and weekend destination for those coming to arts and athletics events on campus. An alternative energy education and research center at the repurposed Center for Tomorrow, located near the solar array planned for the land surrounding the Baker Chilled Water Plant, will provide a place for residents of the Buffalo Niagara region to learn about ways in which they can make their homes and businesses more environmentally sustainable.

Some of these new facilities are specifically intended to make UB more competitive with its peer institutions while also providing community amenities. These include the new recreation and wellness center, the hotel and conference center, and a retirement community, either on Lee Road or on the land west of Millersport Highway, that will attract local senior citizens seeking lifelong learning opportunities in the heart of a vibrant campus environment.

- Physically integrate the campus with the region. When it was built, North Campus was purposely separated from the rest of Amherst by a “buffer” of landscapes and high-speed roadways in order to provide rapid access – the original plan projected peak traffic to the campus at more than 10,000 cars per hour – and allow for views of the planned campus skyline from afar. Today, the physical isolation of the campus is seen as a barrier to campus-community integration and the successful development of new residential, commercial, and retail amenities in the adjacent Amherst neighborhoods.

New physical connections between campus and community will provide better access and reduce traffic congestion, supporting the Town of Amherst Bicentennial Comprehensive Plan’s recommendations for physical improvements along Audubon Parkway. See Encourage Mutually Beneficial Neighborhood Development and Broaden Transportation Options below.

- Improve safety and security. In general, these new community-oriented programs and physical connections should also enhance the safety and security of the campus by increasing activity at all hours, especially nights and weekends. Safety on the trails ringing the campus and Lake LaSalle will be enhanced by the creation of continuous loops for easier University Police access and surveillance. The roadways on campus will be redesigned to reduce automotive speeds and eliminate conflicts at busy intersections and accident-prone areas.

Additional security improvements will result from measures designed primarily to achieve other plan objectives. The expansion of the academic core will place new buildings in a position to overlook parking lots, which will no longer feel so isolated. Under the Heart of the Campus initiative, building overhangs at Canep Hall and Lockwood Library will be enclosed with glass to create new learning landscapes spaces – with, with the addition of biotards or planters, will also block unwanted vehicular access. The entry to the tunnel through the Ellicott Complex will be restricted to allow access for authorized vehicles only.
A new public safety facility, located in a highly visible and accessible location on Millersport Highway near the Arts and Humanities and Athletics precincts, will replace cramped Bills Hall with a modern, welcoming facility incorporating an emergency operations center that will serve all three UB campuses and the surrounding region.

- **Support stronger campus-community relations.** UB and the Town of Amherst have a strong common interest in promoting appropriate, high-quality development around the boundary of our campus. We find much common ground with the Town’s Bicentennial Comprehensive Plan, especially the call for mixed-use “town centers” on the campus edge. Town and university are working to establish a permanent, joint working group to undertake a continuing collaborative planning effort.

**GROW IN CONCERT WITH OUR COMMUNITIES.**

- **Set a pattern for sustainable regional growth.** As outlined in Chapter 3, UB wants to ensure that regional economic development driven by the expansion of our research activities, academic programs, faculty, and student enrollment will benefit the surrounding communities. One of the many ways UB seeks to do this is by collaborating with state, county, and municipal agencies, transportation authorities, community groups, and others on planning for the development of properties adjoining our campuses, as we have done in the making of this plan. Working together, we will meet the pressures to seek short-term gains in tax revenues with long-term plans for economically sustainable development that benefits both UB and the region.

- **Encourage mutually beneficial neighborhood development.** UB’s efforts to physically integrate North Campus with the region cannot rely solely on improvements to campus property; they must also strive toward the development of properties surrounding North Campus in a way that will “soften” the campus edges with new campus- and community-oriented amenities. UB will continue to work with our partners to encourage such development. A good example of such cooperative efforts was the participation of the University at Buffalo Foundation and UB’s Office of Student Affairs in the development of a new Catholic Campus Ministry Center on Skinnersville Road, northeast of the campus. Slated for completion in early 2010, the center will offer an amenity for both North Campus and the Town of Amherst, and an asset for UB student recruitment, with a level of attention to architecture and landscape that is appropriate to its setting.

Further efforts will focus on the following locations, perhaps through the extension of the New Community District zoning designation that has been applied to the area north of the campus:

- **Sweet Home Road:** Land along the western edge of North Campus forms a corridor of growing economic activity in a prime location with excellent highway access. UB intends to expand Baird Research Park (see above), but envisions its new facilities in a mixed-use district with commercial and retail uses to support both campus and community populations. Guidelines should be established to promote safe transportation for all users and preservation of the green, landscaped character of the corridor. These guidelines should also discourage strip-mall-style development and promote walkable environments consistent with town and university planning goals. Campus-community connections should be enhanced with new bike and pedestrian paths across Bizer Creek and Sweet Home Road to Chestnut Ridge Road and the off-campus student housing beyond.

- **Hotel district:** A concentration of hotel and commercial development marks the southern boundary of the campus, and an important secondary entrance to the campus along Flint Road. While these accommodations provide a valuable service to UB visitors, the district is unsightly, characterized by parking lots, driveways, and buildings too far back from the street. Design guidelines for the redevelopment of the district should aim to improve access and enhance appearance, providing for new landscape treatments, continuos sidewalks, and consistent signage. UB will coordinate its investments in signage and sidewalks on Flint Road north of Maple Road with investments in the hotel district.

- **Pepsi Center and **The University Town Centre development planned for Maple Road south of the Pepsi Center will create an important district of housing, shops, theaters, and restaurants within walking distance of the academic core. The project is a strong manifestation of the Bicentennial Plan’s call for town center development, and is consistent with UB’s support for mixed-use development close to the campus edge. UB will continue to work with the town, the project sponsor, Bardonson Development Company, and NYSDOT to establish stronger physical links between the campus and the project. This could include an extension of Coventry Road, with sidewalks and provision for bicyclists across Millersport Highway, south along the Pepsi Center access drive, to Maple Road.

- **Millersport property:** As noted above, the campus property east of Millersport Highway provides essential expansion space for recreational and mixed-use development supportive of university competitiveness, including a research park, retirement community, or other uses. Such development could be served by an extension of Webster Road, across Millersport Highway, through the university property to an intersection with North Forest Road. This road, consistent with concepts advanced by the Bicentennial Plan, would provide improved neighborhood access to campus amenities, and service the WBFQ 88.7 FM transmitter building and tower on the property. The road would require a coordination with NYSDOT as well as consultation with the North Forest neighborhood.

- **Ramada Hotel and Conference Center:** This recently redeveloped property on North Forest Road at Aldenbury Parkway, formerly the University Inn, should serve as a model for the kind of mutually beneficial mixed-use development and community-oriented design UB seeks for properties adjoining North Campus, such as the hotel district at Flint and Maple roads. A new 80,000 square foot LEED Silver certified multi-tenant commercial office building will face the street, with parking and service functions located behind and shared with the renovated hotel and conference center. Access to this development will be improved by a new recreation path crossing Ellicott Creek and, eventually, by the Bus Rapid Transit or Metro Rail extension proposed by the plan (see Broad Transportation Options below).
BROADEN TRANSPORTATION OPTIONS.

In order to become fully integrated into the surrounding neighborhoods, provide seamless connections with UB’s other campuses, and reduce our carbon footprint, North Campus must—and will—become a hub for regional transportation services. It will be better served by both public and UB transit services, more accessible by walking and biking, more convenient for those who use carpools and vanpools, and safer for travelers using all modes of transportation. It will also be easier to navigate by car, with better parking options sufficient to meet demand.

The most convenient access to North Campus today is by car—and surrounded by multiple loop roads and a sea of parking, it feels that way, too. But a different way of life on North Campus is possible. The UB Stampede and intra-campus shuttles have made transit a routine part of campus life for many students. And North Campus has the foundations for a thriving pedestrian and bicycle culture: sheltered connections between most of the buildings in the academic core; extensive car-free plazas; and expansive landscapes, including Lake LaSalle. With a few improvements, these could be great settings for walking and biking.

Policy shifts are also necessary, and the change will be gradual (see Chapter 3). Some primary pathways will be protected by new windbreaks or other structures to improve outdoor comfort during the winter (see Enhance the Pedestrian Experience below). A system of improved pathway materials and simplified plowing and de-icing regimens will also help keep construction and maintenance costs down (see Chapter 3).

> Prioritize pedestrians and bikes in the campus core. The plan establishes the entire academic core—the area bounded by White, Hadley, Augspurger, Lee and Coventry roads—as a pedestrian-priority zone. Prominent signage will mark the pedestrian zone and routes for private and service vehicles will be modified to limit conflicts between cars and pedestrians and bikes.

Service access to the Academic Spine will be maintained through a series of spurs from Augspurger, Hadley, and White roads to loading docks at each building, located to minimize conflicts with pedestrians. Loading docks located on the north side of the Computing Center and Fronczak Hall along Putnam Way will be relocated to the outdoor passage on the south side of those buildings, which will become a service corridor for the core of the Natural Sciences precincts as well as Capen and Talbot halls. See the Fit Between Cars and Our Campuses below for more on these changes.

> Improve commuter bike routes. The proposed comprehensive bicycle network for North Campus will create a clear hierarchy of well-marked bike route types—some planned, others already in place— to maximize bicycle safety and convenience.

There will be a bike lane on each side of Lee Road between the Student Union and Elliott Complex, a route that is expected to attract significant cross-campus bike traffic. UB will also work with the Town of Amherst to improve safety and provide consistent winter plowing for the bike lane along Sweet Home Road. “Sharrow” markings are proposed for nearly every North Campus roadway that does not have a dedicated bicycle lane or adjacent off-street shared path, turning the entire campus into a “bike-friendly” zone. Similarly marked shared roads will also lead to South Campus and off-campus destinations along the way (see Chapter 3).

Off-street shared paths, used by bicycles and pedestrians together, will parallel the entire length of Audubon Parkway, create a loop around Lake LaSalle, and provide safe routes between the campus core and campus edges. These paths will also connect to the Elliott Trail System, linking North Campus to a regional network of off-street paths.

Some primary pathways will be protected by new windbreaks or other structures to improve outdoor comfort during the winter (see Enhance the Pedestrian Experience below). A system of improved pathway materials and simplified plowing and de-icing regimens will also help keep construction and maintenance costs down (see Chapter 3).

> Encourage year-round walking and biking. More people will walk or bike across campus if they perceive that they have more convenient, safer ways to do so. While the pathway network on North Campus is fairly continuous in the academic core, it does not extend to all parts of the campus, and there are gaps in locations with heavy pedestrian use. A more complete network of pathways and crosswalks will lead from the campus core to all significant campus destinations and toward signalized intersections at the edges of campus. To identify the areas most in need of new sidewalks or off-street shared paths, the plan ranks these as primary or secondary priorities for construction.
- Enhance on-campus bike facilities. Bicycle infrastructure improvements on North Campus will include plentiful covered bicycle racks, additional bicycle lending hubs at key residential and campus life locations, and new bike stations in the living-learning quarter, connected to the transit pavilion (see next page), and in the Ellicott Complex. Each bike station will have covered racks, short-term bike lending, access to tools, and showers, changing rooms, and lockers.

 PROVIDE SMOOTH TRANSIT CONNECTIONS.
- Improve transfers between modes of travel. A prototype for improved bus shelters across all UB campuses — including better weather protection and electronic signage indicating the arrival time of the next bus — will be tested in a high-volume location on North Campus. The campus will also benefit from a new transit pavilion, centrally located at the junction of Putnam Way and Lee Road, and designed to serve the Stampede and intra-campus shuttles as well as the proposed future Bus Rapid Transit and Metro Rail extension. See Chapter 3 for more detail on UB bus shelters and transit pavilions.
- Work with the Niagara Frontier Transportation Authority (NFTA) to expand Metro Bus service. The only scheduled public transit serving North Campus is the #44 NFTA Metro Bus route. While there are many concentrations of UB students, faculty, and staff throughout Erie and Niagara counties, only those who live on the #44 route can take a bus today to North Campus without transferring at least once. UB will work with the NFTA to develop ways to capture these potential riders by providing more direct Metro Bus access between North Campus, the surrounding suburbs, and other key destinations.
- Support a “one-seat ride” between all three campuses. NFTA Metro Rail service between downtown Buffalo and UB’s South Campus is a great asset for the university and the surrounding communities, and helps reduce automobile travel and parking demand on South Campus. The university’s goal is to connect North Campus to Metro Rail as well, providing a “one-seat ride” connecting all three of our campuses. UB will benefit, of course, but so will the region at large, which will enjoy better access to North Campus as well as downtown Buffalo, and the NFTA, which will enjoy increased revenue and increased public support for its services from a significantly expanded riderhip base, anchored by UB. As discussed in Chapter 3, the extension will involve a long process of study, planning, and construction, which requires that we take interim steps to improve transit serving North Campus.

 The plan reserves a right-of-way through the academic core on North Campus that will be used in the short term for a revised Stampede route, in the middle term for a new University Bus Rapid Transit (U-BRT) route between North and South campus, and in the long term for the Metro Rail extension. Each of these modes will have a similar route through campus, simpler and faster than the current Stampede route and with fewer stops in order to minimize travel times to South Campus. In particular, the U-BRT and the Metro Rail extension, which will also serve points in Amherst between the campuses, will need to have significantly fewer stops on North Campus in order to maintain short travel times between the campuses.

 In order to replace on-campus service by the Stampede, as it makes fewer campus-to-campus stops, North Campus shuttle routes will need to be adjusted and service increased. The plan offers an opportunity to simplify on-campus shuttle service as well, serving more stops with fewer routes while reducing the need for transfers. If justified by further study, outpatient stops on these shuttles, such as Flickinger Court, Creekside Village, and the Service Precinct, could be skipped by some shuttles or limited to on-demand “flag stop” service in order to reduce circuit times for these longer routes (see diagram on next page).
Chapter 4 — North Campus

**Roadways Approach**

**Sweet Home Rd.**

**Service Center Rd.**

**Lee Road** *Main Street,* a short walk through the Oval or along community to walk, bike, or use transit. New restaurants on the sidewalk changes and financial incentives to encourage the UB and handicapped visitors. The plan also proposes roadway and stadium "front door" access to the Stampede, UB shuttles, between the transit pavilion and UB Stadium, and limiting underused for these events, resulting in traffic backups in the campus core before and especially after major events.

Incentives to use the Stampede to access special events could include improvements to bus shelters, special shuttle service between the transit pavilion and UB Stadium, and limiting stadium "front door" access to the Stampede. UB shuttles, and handicapped visitors. The plan also proposes roadway and sidewalk changes and financial incentives to encourage the UB community to walk, bike, or use transit. New restaurants on the Lee Road *Main Street,* a short walk through the Oval or along Lake LaSalle from the special events venues, may also encourage visitors to linger after events, reducing peak traffic volumes. In addition to improved service for special events, UB will also study the possibility of expanding its shuttle services to popular off-campus retail, employment, and travel destinations such as the Boulevard Mall and Buffalo Niagara International Airport.

However, depending on demand, these destinations may be better served by ridesharing, supported by improved networking tools (see Promote Sustainable Transportation Alternatives below).

**Improve the Fit Between Cars and Our Campuses.

Reduce traffic speeds and create functional loop roads.** The North Campus roadway system reflects the prevailing urban design principles of the 1960s, when convenient, high-speed automobile use was the first priority. It was also designed to accommodate the traffic generated by a typical weekday population of 50,000, far more traffic than North Campus will produce even after it has achieved the growth planned under UB 2020. Roads designed for excess capacity encourage high-speed driving, leading to more vehicular-pedestrian conflicts. And an excess of roads makes North Campus less pedestrian- and bike-friendly, and adds unnecessarily to polluted stormwater runoff volumes.

Changes to the North Campus roadway system will focus on the three loops identified in the introduction to this chapter. The outer loop, currently too fast, will become slower, safer, easier to cross, and better integrated into the naturalized landscapes of the campus periphery. The middle loop, currently discontinuous, will be made whole, and its crossing improved. And the inner loop, currently too tight, will be given over to pedestrians, bicyclists, and transit, converting it into a vital part of the campus core landscapes and loosening physical constraints on the thickening of the Academic Spines.

The outer loop: Audubon Parkway and Millersport Highway

The posted speed limit on Audubon Parkway is 45 MPH, but low traffic volumes and wide roadways encourage much higher actual speeds. Accident rates show that the parkway can be dangerous for people in cars as well as people on foot. In addition, creating the potential for serious injury, Audubon Parkway and Millersport Highway are barriers between the campus core, the woodlands and open spaces on its periphery, and the surrounding communities.

Under the plan, Audubon Parkway’s inner carriageway will be abandoned, and both directions of travel will be shifted to the outer carriageway. This two-way traffic, with one lane in each direction, will be separated by a wide striped or landscaped median lane that will become an exclusive turning lane at conventional intersections. The abandoned inner carriageway will be converted into a recreational bicycle and walking path, creating a loop around North Campus connected to the Elliott Trail System. This "roadway diet" strategy cannot be extended to Millersport Highway, which has much higher traffic volumes.

Another tool, the modern roundabout (see top of following pages), will also be used on Audubon Parkway and may be used on Millersport Highway to reduce traffic speeds and improve pedestrian and bike crossings while also improving traffic flow. The Audubon-Flint, Audubon-Nensich, Audubon-I-990, and Audubon-Lee intersections are proposed to be single-lane roundabouts. Where traffic volumes are greater and pedestrian crossings are less likely, at Millersport-Audubon and Millersport-Webster, two-lane roundabouts will likely be required. And where traffic volumes are lower, at Audubon-Hamilton and a new four-way connection between Audubon, Hadley, and Service Center roads, new signalized intersections will be installed to improve both vehicular and pedestrian crossings.
The middle loop: White, Hadley, Augspurger, and Lee roads

Three of these roadways form a partial loop that allows drivers to access parking without driving through the academic core of North Campus. However, Lee Road, which should form the eastern side of the loop, instead ends at Lee Loop in front of the Commons. As a result, some drivers choose to use Putnam Way, the inner loop road, to make their way around the core, and those driving around the campus for the first time can find it difficult to make their way between the north and south sides of the core.

Under the plan, Lee Road will become continuous from Audubon Parkway to Augspurger Road, completing a middle loop around the core. In addition to improving access to the new campus “Main Street” along Lee Road, simplifying vehicular wayfinding, and defining the boundary of the pedestrian-priority zone of the core, this change will enable the middle loop to replace many of the current functions of the inner loop, Putnam Way (see below).

Traffic speeds on the middle loop will be moderated by adding metered parking to one side without widening the roadway, which will create narrower lanes and change its character to that of a neighborhood street. (The parking lane may be temporarily converted to a moving vehicle lane to handle increased traffic volumes during special events.) And a new signalized intersection at Flint and Augspurger roads will improve crossings at this primary campus entrance.

The inner loop: Putnam Walk

Although originally planned as a “faculty street” to serve shuttles, bicycles, and pedestrians only, Putnam Way was built and is used to serve private cars and service vehicles. Instead of a safe, pleasant place to walk or bike, Putnam Way looks and functions as a utility zone filled with cars, trees, parking, and loading docks. Without a change, these conflicts would intensify as new buildings thicken the Academic Spine, increasing pedestrian, bike, and transit traffic along and across Putnam Way.

Private cars and service vehicles will be removed from Putnam Way, and the new Putnam Walk will give the right-of-way exclusively to walking, biking, and public transit. The roadway will become a shared pedestrian-bicycle path on its southern segment, and a shared pedestrian-bicycle-transit route on its northern segment; its eastern segment will become part of Lee Road. To accommodate UB shuttles, the Stampede, and potential future U-BRT or Metro Rail traffic, the northern segment of Putnam Walk will be designed as a traffic-calmed roadway.

Make pedestrians and bicyclists more visible to drivers, North Campus roadways will feature “sharrows,” the road markings and signage alerting drivers to watch for bicyclists, sidewalks along both sides, and prominent crosswalk markings. Some roadway sections, however, will require special attention:

Lee Road, a mix of on-campus housing, dining and retail venues, a recreation and wellness center, and a hotel and conference center, will have a vibrant “Main Street” atmosphere. In addition to trees, signage, and glassy façades lining Lee Road, the design of the street itself will create a welcoming and safe environment for the UB community and visitors, with bike lanes separated from vehicular traffic, patterned paving at crosswalks, and pedestrian crossing distances reduced by sidewalk “bulbs” at each intersection.

Putnam Walk will exclude private cars, with prominent signage at its intersections with Hadley and Lee roads. Its roadbed will be modified to slow transit vehicle speeds and prioritize pedestrians and bicyclists.

Putnam Plaza, on Lee Road between Putnam Walk and Founders Promenade, will be the crossroads of North Campus. Bordered by the Student Union, the recreation and wellness center, the living-learning quarter, and the Oval, Putnam Plaza will be filled with pedestrian traffic. Lee Road will pass through this junction as a shared plaza, with raised roadbeds, patterned paving, and reduced-speed signage designed to maximize pedestrian safety. See Chapter 3 for more details on shared plazas.

LEE ROAD ROUNDBOUT

A new one-lane, four-leg modern roundabout at the intersection of Lee Road and Audubon Parkway is slated for completion in 2010 as part of the South Ellicott housing project. Roundabouts slow traffic and eliminate the idling that happens at traffic lights. They also make it safer for pedestrians because the pavement they need to cross is much narrower and they can cross in two phases, stopping on the “splitter island” between one lane and another. This first roundabout on North Campus will mark the northern entry to Lee Road, the new campus “Main Street,” and will be the first stop toward a major change in character for Audubon Parkway.

MODERN ROUNDBOUTS

Compared with conventionally controlled (signalized) intersections, roundabouts have reduced fatal crashes by more than 90 percent, injury crashes by 76 percent, and pedestrian crashes by 30 to 65 percent, according to the Federal Highway Administration. Since the main effect of modern roundabouts is to reduce speeds and increase driver alertness, they act as an effective traffic calming device while keeping cars moving, thereby also reducing the delays, air pollution, and fuel consumption that go with cars idling at traffic lights.

While further study is required to determine whether some of the roundabouts proposed for North Campus will require two lanes, or by-pass lanes for right turns, UB’s shift to roundabouts has received strong support from the New York State Department of Transportation as well as the University Police Department and University Parking and Transportation Services.
Make parking lots greener and more pedestrian-friendly. Both new and existing lots will be surfaced with porous paving where possible, and landscaped with bioswales and trees to collect and filter stormwater, attenuate winds, and provide shade (see Minimize Stormwater Impacts below). The lots surrounding the campus core will feature landscaped pathways, or “green fingers,” that will connect to the naturalized outer ring surrounding the campus core will feature landscaped pathways, or “green fingers,” that will connect to the naturalized outer ring of the campus.

Build parking garages. Parking lots cover nearly 9 percent of North Campus, or 97 acres – almost twice as much land as is covered by buildings. Yet the common perception is that parking is never convenient enough – even though lots are full only at peak times on busy days. This “sea of parking” dominates the image of North Campus, creating a poor first impression among visitors and a confusing arrival experience. To help free-up space for a “greener” pedestrian campus core and replace parking spaces lost to new buildings, the campus will have four new garages. Strategically located near the entries to the campus and within a five-minute walking radius to the academic core, the garages will provide all of the visitor parking and proximity-priced parking located in the new garages, and where UB drivers will be able to choose to pay more for the convenience of parking closest to the academic core of the campus, or pay nothing – other than their employee “cash-out” benefit – for parking in more distant lots. This strategy is critical to financing the construction of the garages. It is contingent on two other TDM measures, which are described in Chapter 3: providing monetary incentives to employees, a measure that requires negotiation with the UB unions; and unbundling student parking fees.

Existing Peak Parking Utilization Rates

- Full: > 90%
- Nearly full: 81 to 90%
- Near full: 71 to 80%
- Almost full: 61 to 70%
- Almost empty: 51 to 60%
- Empty: <50%

Parking Plan

- Proposed parking structure
- Number of parking levels
- Existing surface parking lot
- Temporary swing parking lot
- Proposed on-street metered parking
- Five minute walking radius

PROMOTE SUSTAINABLE TRANSPORTATION ALTERNATIVES.

Alternatives to car travel are weakest on North Campus. The plan’s university-wide Transportation Demand Management (TDM) program is most needed here to incentivize walking, biking, carpooling, and using UB or public transit. Chapter 3 provides a comprehensive description of this program. The following TDM strategies in particular are expected to have a significant impact on single-occupant vehicle use at North Campus, and its effects on parking demand, greenhouse gas emissions, stormwater quantity and quality, and the character of the campus.

Price Parking by Proximity: This measure is specifically targeted at North Campus, where all visitor parking will be located in the new garages, and where UB drivers will be able to choose to pay more for the convenience of parking closest to the academic core of the campus, or pay nothing – other than their employee “cash-out” benefit – for parking in more distant lots. This strategy is critical to financing the construction of the garages. It is contingent on two other TDM measures, which are described in Chapter 3: providing monetary incentives to employees, a measure that requires negotiation with the UB unions; and unbundling student parking fees.
Provide Sufficient Parking to Meet Demand.

While the growth of the student, faculty, and staff population of North Campus will tend to increase parking demand, the TDM measures described above and in Chapter 3 ultimately will reduce demand to below current levels.

The parking plan for North Campus will be sufficient to meet demand under a variety of TDM and transit development scenarios, and will compensate for the 3,031 spaces lost when new buildings are constructed on parking lots. The supply of parking spaces illustrated by the plan (10,601 spaces) will be adequate to meet projected demand when aggressive TDM strategies are employed. It does not assume the replacement of the Campus Stampede by Bus Rapid Transit or the extension of the Metro Rail to North Campus. The table on this page shows that the reduction in parking spaces under the plan will be relatively modest, but still large enough to significantly reduce parking construction and maintenance costs, and associated environmental impacts.

In addition to the new garages and existing lots, new on-street metered parking in and around the academic core and Lake LaSalle will be provided as a supplementary option for visitors, and for faculty, staff or students who regularly commute by alternative means, but have to use a car on occasion. Resident students who occasionally need their car during the day will also have the option to use metered parking. Some of these spaces may need to be suspended to improve traffic flow during special events.

The plan also illustrates a new temporary parking lot east of Millersport Highway, paved with permeable "grasscrete," to allow water drainage and reduce permanent alteration of the landscape. This will serve as a "swing" lot to make up for the periodic loss of parking spaces during construction projects over the years ahead. In the long term, this lot, which will be served by UB shuttles, could also serve as overflow parking for special events, long-term resident student parking, or parking for the future development of the campus property to the east.

Throughout UB, the implementation of TDM will be closely monitored and adjusted to ensure that parking supply remains consistent with demand. University Parking and Transportation Services will measure use of the garages, close-in surface lots, student resident lots, and metered parking, and adjust the associated fees as necessary; will issue parking permits for staff, faculty, and commuting students for specific garages or lots depending on the fee paid; assign disability parking spaces in new facilities in accordance with the Americans with Disabilities Act; and develop a permit and fee policy for people with disabilities and other users with special needs.

ClariFy Campus Navigation.

Much of North Campus, and nearly all of its circulation system and the accompanying wayfinding system for navigating it, is circuitous, confusing, and scaled to the vehicular experience. The physical and policy changes planned for North Campus will encourage more people to walk, bike, or use transit; create new precincts, centers of activity, and campus landmarks; reorganize service access; limit private cars to specific roadways; and relocate visitor parking. These and other changes will make a revised wayfinding system essential.

Create visitor centers. Under the Heart of the Campus initiative, Capen Hall will house the North Campus visitor center. Access to this central location from both the north and south sides of the campus will be facilitated by the creation of broad new interior corridor spaces linking the Capen Hall on-ramps on Hamilton and Flint loops.

Provide an unbroken chain of information to visitors. A successful wayfinding system must address the needs of a traveler at each decision point along the way to North Campus and, once within its boundaries, to a specific campus destination. This system must work for first-time visitors, everyday commuters, and on-campus residents, from the rapid vehicular route at the I-990 exit ramp all the way to the pedestrian approaching a building’s front door. The following measures will also help make North Campus feel less isolated and more intimate and welcoming:

- Coordinate approach signage. Coordination is recommended between UB, NYSDOT, and the Town of Amherst to properly and consistently sign the approaches to North Campus from the region’s highways. Signage on I-990, I-290, and Millersport Highway should clearly point the visitor to one of the four campus gateways.

- Emphasize campus gateways. The high-speed roadways on the approach to North Campus create a need for places that encourage a traveler’s arrival at UB and show the way to specific parts of the campus. First-time visitors following directions from UB’s Web site will be directed to two primary gateways from the region’s highways: the north gateway, from the I-990 northbound ramp; and the south gateway, from Millersport Highway northbound. Both primary gateways will feature large roundabouts with prominent "Welcome to UB" signage and central landscaping or public art installations, requiring drivers to slow down and approach the directional signage indicating how to proceed to specific parts of the campus. These roundabouts will also eliminate the need for exit-ramp signs to Audubon Parkway coming from I-990, and the massive, unnecessary “flyover” ramps that dominate the southern approach to the campus.

Ten secondary gateways to the campus, from I-990 southbound via Audubon Parkway and from Millersport High- way southbound, are expected to receive fewer first-time travelers. Because visitors will travel straight through these gateways no matter their campus destination, they do not require directional signage. These locations will be provided with “Welcome to UB” signage but will not be emphasized. Other campus access points used by “those in the know,” such as Skinnerville and Rensh Road and the future extension of Webster Road, will not be marked as gateways or entrances.

Distinguish between major and minor entrances. The gateways will lead to prominently marked entrances from Audubon Parkway or Millersport Highway to the core of the campus, leading to primary visitor destination points such as the North Campus visitor center at Capen Hall and the special events venues of the Arts and Humanities and Athletics precincts. Each of these major entrances – at Hamilton, Flint, and Coventry roads – will be designated a minor entrance, as is the campus “Main Street,” it will be designed to prioritize pedestrian, bike, and transit traffic and will not handle large volumes of private cars. From Maple Road and the hotel district to the south, from Flint Road will also be designated as a minor entrance. When the new Millersport-Audubon roundabout is completed, nearly all traffic from the south will be directed to enter the campus via the south gateway rather than Maple or Flint roads.
Access points, used only by regular commuters, will be signed only to identify street names, and will not have UB directional signage. Because Rensch Road will not lead to a primary visitor destination point or garage, and because Rensch Loop will be eliminated to accommodate the expansion of the Natural Sciences South Precinct toward Baird Rensch Loop will be designated an access point.

- Simplify vehicular navigation from entrances to parking and drop-offs. Each major entrance will provide clear, direct access to visitor parking, and each drop-off, garage, and parking lot on campus will be named and numbered according to the entrance or access point used to reach it. For example, vehicles traveling to the campus core via the Flint Entrance will proceed along Flint Road toward Flint Loop to access the Flint garage or Flint lots. Color-coded directional and parking lot signage will reinforce this system. Alternate garage and lot entries will be available for drivers familiar with the campus.
- Expand pedestrian navigation signage. A student survey conducted as part of the plan identified Putnam Way and the promenade east of Founders Plaza as primary pedestrian routes. Under the plan, the renamed Putnam Walk will be limited to pedestrians, bicyclists, and transit. Founders Promenade will be extended west past Flint Loop into the Natural Sciences South Precinct and east past Lee Road into the Arts and Humanities Precinct; and Lee Road, the new campus “Main Street,” will become a new primary pedestrian route. All three will be highlighted in a new pedestrian signage system, along with secondary branches from these routes that reach quads within precincts, parking garages and lots, and off-campus destinations.
- Give every building a recognizable street address. The reorganized roadway system will give nearly every North Campus building a street address facing one of a limited number of campus arteries. With only a few exceptions, all existing buildings and proposed building sites on North Campus will be addressed to Lee Road, Founders Promenade, Putnam Walk, the middle loop formed by Augspurger, Hadley, and White roads, Webster Road, or Service Center Road. Buildings that do not directly face a street will be addressed to the street faced by a nearby building to which it is physically connected. While not all of these streets will be accessible by private cars, this system will allow GPS-based navigation systems to provide more precise directions to visitors, while simplifying navigation for emergency responders and service providers.

Arrival Hierarchy
- Visitor destination
- Visitor parking
• Enhance orientation maps. One of the unique features of North Campus is a system of interior passageways and sheltered pedestrian bridges that connect many of the buildings in the academic core at the ground, first, and second floors. Many of the new buildings proposed by the plan will also be part of this continuous "living corridor." While convenient, this world of corridors, bridges, tunnels, stairways, and elevators can be confusing and disorienting. The connections between buildings are often seamless, leaving visitors unsure of when they have left one building and entered another. Signage is minimal and inconsistent, and gives pedestrians no clear view of the entire system. As a whole and in its constituent parts, this interconnected system feels placeless.

To help tie the entire system together, this learning landscape can be overlaid on a simplified map that places all precincts, buildings, and interior or sheltered connections in a unified context. Much like a typical subway map (see below), indoor walkways and underground systems in cities like Calgary, Edmonton, Montreal, and Toronto have shown how such a "branded" wayfinding system can assist in navigating and in promoting a sense of place.

• Improve destination information. Today, some North Campus buildings are identified only by huge signs located high up on their facades, which do not enhance the image of the campus and also fail to provide pedestrian-level identification. All primary building entries will have signage that is appropriately located, scaled, and detailed.
North Campus: Placemaking

Everything described in the previous pages will make North Campus a more convenient, more functional, and more sociable place to live, work, and play. Implementation of the plan will provide a new learning landscape, enhanced campus life facilities, and transportation improvements. But something more will be needed to establish a sense of place—that palpable but ineffable feeling that North Campus is more than the sum of its parts. Something more will be needed to make North Campus a place with personality and character, a place that matters, a place worthy of affection.

North Campus today has just a few places so magnetic that they are constantly buzzing with life, and nearly all of them are indoors, such as the Student Union. The plan’s placemaking strategies seek to extend that vitality throughout North Campus outdoors, such as the Student Union. The plan’s placemaking strategies seek to extend that vitality throughout North Campus.

ENHANCE CAMPUS CHARACTER.

The 1970 master plan for North Campus gave it a strong and consistent character that can seem overpowering and starkly homogenous. The massive architectural forms, broad plazas, and dark color palette established during the primary phase of campus construction created an intimidating scale and somber atmosphere throughout most of the campus. Combined with a stunted landscape, a sea of parking, and large gaps between residential and academic centers of activity, the result is a campus that can be hard to love. Still, there are ways to preserve, enhance, and celebrate positive elements of the campus even as its overall physical character is improved.

Conserve natural assets. Many natural features of the land occupied by North Campus were significantly altered to prepare the site for construction: Bizer Creek was re-routed into a drainage channel around the western edge of the campus; Lake LaSalle was created from a quarry for on-site fill used to raise the academic core above floodplain level; and the fill, mostly clay, was mixed into campus soils, creating conditions detrimental to plant growth. However, some valuable features that predate the campus remain, including wetlands, forested areas, and agricultural “old fields” that are reverting to meadows. These will be protected, buffered from new construction, and integrated into a continuous ring of revitalized natural landscapes around the campus periphery to make them healthier, more resilient, and more supportive of local wildlife. See Chapter 3: Campus Landscapes below for more details.

Create memorable place names. New buildings, roadways, and open spaces will create naming opportunities that can help tell the history of the campus, assist in wayfinding, and recognize major benefactors. The plan identifies several such opportunities on North Campus and assigns them logical names to introduce and define new concepts, to facilitate their discussion, and to generate early enthusiasm for significant new campus features. Ultimately, a UB committee on place naming will establish these names in a way that builds on, and does not diminish, the existing naming system.

Highlight campus landmarks. New buildings and additions will preserve and focus views across and within the campus to existing landmarks such as the Ellicott Complex, UB Stadium, and Baird Point. While each new building should be considered an opportunity to create new architectural landmarks for the campus, several sites in particular require special attention: the sites designated for a student residence hall near the Governors Complex, greeting travelers from the I-990 gateway to the campus; the sites for the humanities center on Flint Loop and a new engineering building on Hamilton Loop, both primary entrances to the campus core; and all of the sites surrounding the Oval, which will frame views to Baird Point and Lake LaSalle.

Public art has the potential to make the North Campus experience both more friendly and more enlightening. At Founders Plaza, the two-year loan of a public artwork (“For the gentle wind birth move Silently, invisibly,” by internationally known artist Brian Tolle) has provided visual interest to a prominent location on campus. Commencement traditions include taking photographs at the buffalo sculpture at Coventry Loop. The plan identifies opportunities for new art installations at key campus entrances and open spaces, including the lawn behind Baird Point, designated as a public park and “no-build zone.”
The solar array will be designed as a large-scale landscape installation. A new photovoltaic [p] solar energy array planned to cover several vacant acres of campus land between Audubon Parkway and Mapla Road will provide an opportunity to create a truly unique campus landmark. Built by a partnership between UB and the New York Power Authority (NYPA), the 1.1 megawatt array – the largest on any college or university campus in New York – will provide enough electricity to power four of the five “villages” on North Campus. Rather than settle for a strictly conventional layout of the panels, UB and NYPA will commission an artist experienced in large-scale landscape installations to design an array that is inspiring, educational, and welcoming.

**Develop and implement an interpretive plan.** Given that much of the 1970 plan was never built, it can be hard to envision what North Campus was intended to look like, and to understand the motivation behind its design. It is also almost impossible to discern traces of the agricultural landscape that predated campus construction. Two interpretive paths, each with consistent signage and perhaps marked by a paving pattern, could help develop a deeper sense of appreciation for the campus, and a better sense of its ongoing evolution. One path, along Founders Promenade, could explain the principles and controversies behind the initial construction of the campus, and highlight the unique design features created by renowned architects such as Marcel Breuer, I.M. Pei, Krich Franssen, Lewis Davis and Samuel Brody, and Charles Gwathmey and Robert Siegal. A second path, approximating the pre-campus route of Boxer Creek, could explain the environmental consequences of campus construction and current efforts to improve sustainability.

**MAKE GREAT PUBLIC SPACES.**

The extensive public realm of North Campus provides a vast canvas for positive change. Empty lawns and sprawling paved areas will be replaced with sunny, intimate courtyards and quadrangles. Dark, opaque building facades will be opened up with clear sightlines and pedestrian pathways.

- **Define clear building sites.** All new buildings on North Campus will be part of the thickened and lengthened Academic Spine or on the new campus “Main Street” between the core and the Ellicott Complex, with the exception of the new public safety facility and buildings in the Service Precinct and Athletics Precinct. This construction will reinforce the east-west axis of the Spine, enhance the north-south axis through Campus Hall, and create a new north-south axis along Lee Road. Almost every new building site will help enclose an existing or new open space, and all will preserve the clarity and directness of sightlines and pedestrian pathways.

- **Reinforce the existing hierarchy of open spaces.** For such a large place, North Campus has a surprising lack of diversity in its open spaces; most are immense lawns or plazas. Students, faculty, and staff crowd the few sunny, sheltered, intimate spaces available from the primary pedestrian routes of the campus. And the periphery of the campus will feature a variety of naturalized settings designed to be shared with the surrounding neighborhoods.

- **Courtyards:** The residential wings of the Ellicott Complex form the only courtyards on North Campus (although they are referred to as “quads”), but they are too shady to receive much use. One of them, Porter Quad, is occupied by a large charter school that should be removed or shielded with landscape. The plan proposes a bigger, sunnier new courtyard at the heart of the new dormitory in the Natural Sciences North Precinct, creating a sheltered green space small enough to feel intimate but big enough to accommodate recreational games. Also, all of the outdoor sunken courtyards in the academic core, which are barren and underused, will be enriched with glass and incorporated into the interior learning landscape under the Heart of the Campus initiative (see Founders Promenade and the Living Corridor below).

- **Quadrangles:** A quad will be at the heart of every precinct in the existing quad, framed by Slee, Baird, and Clemans halls, needs only a new orientation created by the extension of Founders Promenade, and a name – the plan designates it “Arts Quad” – to draw attention to its importance as a campus space. Another existing quad, Knox Quad, will be simultaneously downsized and enhanced by a new adjacent indoor space (see the illustration of Knox Gallery on the next page), and will receive new landscaping to make it a softer, more appealing place. In addition to these, four new quads will be created:

  - **The Engineering Quad** will be framed on its north and by the new SEAS building, scheduled for completion in 2012, and on its west by a future building to the south of Ketter Hall. Open to Putnam Walk to the south, this sunny quad has already been designed with a combination of porous pavements, rain gardens, and alternative ground cover, making for a comfortable gathering place and establishing a prototype for sustainable stormwater design throughout the campus core. See Stormwater Impacts below for more on these landscape types.

  - **The Social Sciences Quad** will incorporate the roadbed of Putnam Way, restricted here to pedestrian and bicycle use, and the sunken Christina Z. Cataldo Memorial Plaza, south of Baldy Hall, into a unified landscape. After the Graduate School of Education moves to South Campus, the playground will be repurposed as an outdoor café or gathering space, connected to the rest of the quad by new stairs and a planted slope along its southwestern edge. The Alfiero Center atrium and the new glass arcades along the south and west sides of Lockwood Library, proposed under the Heart of the Campus initiative, will frame this quad with highly visible indoor activity.

  - **The Natural Sciences North Quad** will be defined by new buildings on the Fronczak and Governer’s parking lots: a new residential hall, parking garage, and two new science buildings. In the east-west direction, this cruciform-shaped quad will connect the Governer’s Complex to Hamilton Loop, in the north-south direction, a “green finger” will extend the naturalized landscape of the campus periphery through the Governer’s C and D lots into the academic core.

**Stormwater Impacts**

- **Minimize impervious surfaces.** All new buildings on North Campus will be designed to incorporate landscaping practices that will maximize the use of permeable paving and porous pavement. The new Engineering Quad will be defined by four new buildings on the Fronczak and Governer’s parking lots: a new residential hall, parking garage, and two new science buildings. In the east-west direction, this cruciform-shaped quad will connect the Governer’s Complex to Hamilton Loop, in the north-south direction, a “green finger” will extend the naturalized landscape of the campus periphery through the Governer’s C and D lots into the academic core.
• PLAZAS: The extensive paved plazas of North Campus, designed to accommodate both pedestrian and vehicular traffic, are generally over-scaled and under-detailed. In addition to removing service vehicles from the plazas (see Prioritize Pedestrians and Bikes in the Campus Core above), the plan will add new landscaping and seating and surround each plaza with activity-filled interior spaces to establish a more human scale and function. [Putnam Plaza, a shared plaza designed to safely mix vehicles and pedestrians at the crossroads of the campus, is described above under the heading Make Pedestrians and Bicyclists More Visible to Drivers].

Founders Promenade includes Founders Plaza in front of Capen and Norton halls and the broad pedestrian corridor (sometimes called North Campus Promenade) to the east. Recent improvements to Founders Promenade under the 2008-2013 capital plan have included new drainage, paving, and landscaping. Proposed changes include new planters incorporating lighting, banners, and seating; shifting the main walking path farther north to avoid the deepest shadows; and adding glass to major building entries, internal passageways, and gathering spaces to visually connect Founders Promenade to the adjoining interior “living corridor.”

The redesign of Founders Promenade will build on changes proposed under the Heart of the Campus initiative to improve the aesthetics, sociability, and circulatory function of interior public spaces along the Academic Spine. The sunken courtyard at the junction of Capen and Norton halls will be glassed in to create a winter garden with grand stairs that connect on three levels, a light-filled “beacon” at the center of the campus. At Lockwood Library, a new entrance from Founders Promenade will lead to a glassed-in lobby and arcade, opening to a skylit atrium at the center of the building. The busy corridor between Knox Lecture Hall and the Student Union will be widened to create the Knox Galleria, with skylit study niches and room for student services offices adjoining the public way.

Proposed view east along Founders Promenade to the Arts and Humanities Precinct and the new entrance pavilion on the west side of the Center for the Arts.

Proposed view east in the Knox Galleria, from Knox Lecture Hall to the Student Union.
STREETSCAPES: Although it has plenty of roadways, North Campus has no streetscapes—no streets where the sidewalks feel connected to adjacent indoor activity, or to the naturalized spaces of the campus. Three new streetscapes will mix all modes of transportation on campus in a pedestrian-focused setting.

Putnam Walk, reserved for pedestrians, bicyclists, and transit vehicles, will have wider sidewalks lined with trees. New buildings along the north side of Putnam Walk will house academic and learning landscape functions behind large expanses of glass. New cafés and meeting spaces in Capen Hall will overlook the south side of Putnam Walk, and loading docks for Fronczak Hall and the Computing Center will be relocated to the new service spine on the other side of those buildings. The corner of Putnam Walk and Lee Road opposite the Student Union will be occupied by the new living-learning quarter, with a bustling transit pavilion on the ground floor.

Lee Road, the new campus “Main Street,” will be lined with a mix of buildings and uses designed to generate the activity typical of a downtown street. Lee Road itself will be designed to prioritize walking, bicycling, and transit, with wide tree-lined sidewalks, protected bike lanes, and a shared right-of-way for cars, UB shuttles, and the Stampede, U-BRT, or Metro Rail extension. Taller buildings along the street will be set back above glassed-in corridors, or arcades, that will provide weather-protected pedestrian routes while preserving visibility for ground-floor retail shops and dining venues.

New extensions of Founder’s Promenade will carry its language of paving, landscaping, and planters into the Arts and Humanities Precinct to the east and the Natural Sciences South Precinct to the west, unifying the design of this pedestrian mall. To the east, Founder’s Promenade will cross Putnam Plaza (see Improve the Fit Between Cars and Pedestrians above). The White-Hadley-Augspurger loop road, completed by the extension of Lee Road, will handle the bulk of private cars and service vehicles traveling around the campus core once Putnam Way is converted to pedestrian, bicycle, and transit use. To redefine this loop road as a transit campus streetscape, it will be fully lined with sidewalks and trees on both sides, and traffic speeds will be lowered by reducing the travel lane widths to accommodate a new lane of metered on-street parking (see Provide Sufficient Parking to Meet Demand above).
Enhancing the Pedestrian Experience

- Enhance the pedestrian experience. In addition to the strategies described above under the heading Create Walkable, Bike-friendly Campuses, the plan recommends landscape and architectural changes to add life to North Campus outdoor spaces. Much more detail on these strategies is provided in the design guidelines in the appendix.

- Design for microclimate improvement. Given Buffalo’s cold winters, the design of the outdoor public realm should seek to maximize comfort in winter. But the Academic Spine runs east-west, and tall buildings on its south side cast Founders Promenade in shadow much of the year. Attempts to make sheltered spaces, like the overhang on the east side of Capen Hall, created cold and dark corridors instead. Fortunately, some of these design flaws can be corrected. The Capen Hall overhang and other similar spaces in the academic core will be enclosed with glass and filled with indoor activity as part of the Heart of the Campus initiative. Wherever possible, outdoor pathways will be shifted out of the shade. The introduction of new smaller-scaled spaces and the sizing of new buildings will block westerly winds will help make the core of North Campus feel cozier during the winter. And additional measures can be taken to ameliorate specific micro-climate problems. A study undertaken in support of the 2002 Master Landscape Plan for North Campus recommended numerous improvements to help reduce wind speeds and snowdrifting in the campus core. Many of these recommendations have been incorporated into the Comprehensive Physical Plan, including strategic tree plantings and the installation of a canopy on the west face of Clemens Hall to prevent winds caught by the sheer vertical face of the building from reaching the ground. The new plan also calls for extensive windbreaks to be planted around the campus perimeter (see the diagrams on the next page).

- Emphasize building entries and connect indoor and outdoor spaces. The renovation of Lockwood Library and Capen, Norton, and Talbert halls under the Heart of the Campus initiative will incorporate extensive new areas of glass into their façades, particularly at primary building entrances and where interior circulation and gathering spaces overlook busy outdoor pedestrian routes. New additions to the campus, such as the SEAS building and South Elliott housing, have been designed with similar principles in mind, and will provide a model for future construction.

- Extend and improve sheltered connections. The network of sheltered connections in the campus core will be improved largely through a new wayfinding system, including the use of learning landscape spaces to create interior landmarks (see Enhance Orientation Maps above). New sheltered connections will also be provided where they are feasible. However, the plan does not recommend linking every new building to this system. A continuous at-grade corridor is not possible along Lee Road because it would block important east-west connections such as White Road and Putnam Walk. And a continuous above-grade bridge or below-grade tunnel would rob the campus “Main Street” of the vibrant street life necessary to sustain its retail and dining venues. Instead, the plan illustrates glass-enclosed arcades facing Lee Road along the length of each building, providing an almost completely sheltered walk from Audubon Parkway to the core of the campus. See The Winter Campus in Chapter 3 for more information about the plan’s strategies for making the UB experience great year-round.

Lawns and Naturalized Settings:

Three lawns facing Lake LaSalle – Marshall Court at the Elliott Complex and the new South Elliott Lawn, both oval-shaped, and Student Park at Baird Point – will be joined by the Oval, a grand new lawn at the crossroads of the campus. A double row of trees and the curved façades of the surrounding buildings will define its shape. Year-round activity will spill into the Oval from the Student Union across Putnam Plaza to the Student Park at Baird Point – will be joined by the Oval, a grand new lawn at the crossroads of the campus. A double row of trees and the curved façades of the surrounding buildings will define its shape. Year-round activity will spill into the Oval from the Student Union across Putnam Plaza to the south. An adjoining inner harbor on Lake LaSalle to a ring of naturalized settings on the campus including the Audubon greenway. More detail on these strategies is provided in the design guidelines in the appendix.
REVITALIZE CAMPUS LANDSCAPES.

▶ Program the landscape. Despite its extensive open spaces, athletic fields, and Lake LaSalle, the North Campus landscape remains an underutilized recreational asset, espe-
ially during the long winter months. The plan reconceptualizes the entire campus periphery as a public park called the Audu-
bon greenway – open year-round to the UB community and visitors alike, and of full opportunities for active and passive recreation. Lake LaSalle will be at the center of North Campus outdoor recreation, with ice-skating, small craft boating, a continuous shoreline path, and other waterfront activities. The solar array planned for the southern end of the campus will be at the center of educational programming for the landscape, with interpretive signage and walking trails connected to the nearby Center for Tomorrow building, which will be repurposed as a regional clearinghouse of information about alternative energy sources.

▶ Simplify landscape maintenance. UB spends too much and gets too little in return for mowing and maintaining extensive lawns that serve no social, academic, recreational, or aesthetic purpose. By clearly differentiating lawns and other high-maintenance landscapes in the campus core from a more naturalized outer ring of meadows, woodlands, and wetlands, UB can beautify North Campus while reducing its maintenance costs. Rather than creating a "buffer" between UB and the sur-
rounding community, the Audubon greenway will be laced with trails connected to the Ellicott Trail System, to new boardwalks through Letchworth Woods, and to sidewalks in the surround-
ing neighborhoods.

▶ Create self-sustaining campus ecosystems. Before North Campus was built – before the area was farmed, or even settled – this land was part of a vast ecosystem known as the Great Lakes Floodplain Forest. Little of this ecosystem remains in the highly developed Buffalo Niagara region. But enough traces remain to allow us to understand how different plant communities, or ecotopes, worked together to sustain a mature and thriving forest. In the appendix to this plan, the Technical Guide on Plants explains how we can create a campus landscape that is healthier, more resilient, and less expensive to maintain than what we have today by planting ecotopes that simulate the natural relationships that kept the land, its water, and its fauna in balance.

At the same time, the campus landscape must serve other functions such as managing stormwater flows, attenuating winter winds, and providing space for recreational activities. Therefore, the plan proposes a naturalized campus landscape of wet and dry forests, meadows, and shoreline ecotopes com-

▶ Improve campus soils. Trees planted in the ground on North Campus 30 years ago have yet to reach the size of trees planted within the last decade in raised beds containing import-
ed soils. Tree limbs lost during the “October surprise” storm of 2006 have not been replaced by new growth. And a decade-long effort to convert vacant land near the Baker Chilled Water Plant into a "natural regeneration area" has yielded very few woody shrubs or trees. The Technical Guide on Soils in the appendix to the plan identifies the culprit: "upside-down soils" created during campus construction by the use of dense, inorganic clay materials to raise building sites above floodplain level. For locations such as the campus core, where “finished” land-
scapes must be installed in a short timeframe, the technical guide recommends the use of raised planted beds with impor-
ed soil, and the installation of curbs along all pathways that will be plowed in order to channel salt-laden snow- and ice-melt into drains and away from plantings. For locations along the greenway, where landscapes can be allowed to develop more slowly, the technical guide recommends:

• traditional agricultural soil tillage methods, including till-

• the addition of organic material, possibly including com-

• the careful selection of plant species well-suited to the specific microclimate, soil mix, and hydrological conditions of each site.
**Stormwater Interventions**

- Permeable asphalt
- Structured parking
- Rain garden
- Parking lot bioretention
- Detention basin
- Continuous tree trenches
- Roof runoff conducted by pipe to detention basin/ran garden
- Watershed boundary
- Area of proposed change in watershed outlet from Braun Creek to Lake LaSalle

**Existing Lake Bedrock Depth**

<table>
<thead>
<tr>
<th>Depth</th>
<th>Area in acs</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 2'</td>
<td>13,500 cy</td>
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<tr>
<td>2 - 3'</td>
<td>18,000 cy</td>
</tr>
<tr>
<td>3 - 5'</td>
<td>3,000 cy</td>
</tr>
<tr>
<td>5 - 10'</td>
<td>5,000 cy</td>
</tr>
<tr>
<td>&gt; 10'</td>
<td>20,000 cy</td>
</tr>
</tbody>
</table>

**Lake Excavation by Dredging**

<table>
<thead>
<tr>
<th>Cy</th>
<th>Area to remain as is</th>
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</thead>
<tbody>
<tr>
<td>43,500</td>
<td>15,500 cy</td>
</tr>
<tr>
<td>35,500</td>
<td>2,000 cy</td>
</tr>
<tr>
<td>2,000</td>
<td>77,250 cy</td>
</tr>
</tbody>
</table>

**Lake Edge Character**

- Naturalized edge
- Parc- like edge
- Urban edge
- Lawn
- Existing woodland

The varying widths of the reconstructed lake edge will support a variety of activities and ecological functions. An "urban" edge where the Oval meets the lake will have paved steps for direct access to the water for skating and boating. A park-like edge along the west and south edges of the lake will provide a transition from new and existing buildings to the shoreline, accommodating recreation paths, stormwater mitigation structures, and wet and dry meadow ecotopes. Along the north and east lake edges, reforestation efforts will support the health of the woodlands adjacent to Ellicott Creek.

**CONCLUSION**

Transforming North Campus into a more functional, more livable, more sustainable place will be a challenge. Further work is required on a number of fronts before we can implement all of the strategies outlined in this chapter. Space vacated by schools migrating to South Campus will be assessed, reassigned, and repurposed. The sizes and locations of learning landscape spaces and dining venues will be adjusted to fit existing conditions and projected demand for their use. The concepts for the research lofts, arts lofts, and humanities center will be developed collaboratively with their targeted users. Private partners will be found to finance and manage facilities such as the university club and the hotel and conference center. Discussions will continue with the Town of Amherst to create a collaborative planning process for the properties surrounding the campus.

Ongoing discussions with the Niagara Frontier Transportation Authority and the New York State Department of Transportation will advance proposed transportation improvements. Parking demand forecasts will be updated as TDM strategies and transit improvements are weighed, revised, negotiated with UB unions, and implemented in collaboration with municipal and state agencies and UB's community partners. Fee structures for proximity parking will be established and adjusted. A new campus-wide signage and wayfinding plan will be developed and changes made as schools relocate, roadways shift, precincts take shape, and the interior walkway system expands. The volume and quality of dredge material in Lake LaSalle will be quantified. Extensive consultation with local and state authorities will certify strategies for stormwater mitigation and watershed modifications.

North Campus is a big place, and we have a big vision for it. The vision extends across campus boundaries to energize local economic growth and revitalize regional ecosystems. It focuses inward, too, with an array of physical changes to intensify the pursuit of academic excellence and enliven every corner of the campus core. The changes will be incremental, and their pace will wax and wane in response to many conditions beyond our control. But we will keep working until we have a North Campus with a spirited sense of place that lives up to its size.
From Main Street, UB’s South Campus presents a postcard view of the quintessential American university campus. Across a park-like lawn, an array of well-preserved historic buildings lines the high ground of the Onondaga Escarpment. The elegant Hayes Hall clock tower, reaching for the sky, serves as a beacon for the city and a symbol of the university’s aspirations. The dormitory towers at the north end of South Campus bespeak a thriving, evolving institution.

From other viewpoints, however, South Campus presents a different image: views interrupted by awkward building additions and 40-year old “temporary” sheds, a worn and patchwork landscape, a confusing array of service routes and roadways. The sprawling complex that houses the health sciences schools creates a virtual wall across the campus and shunts pedestrian activity to a ring of parking lots and a maze of interior corridors. From Bailey Avenue and from within, South Campus can look like a place past its prime.

The goal of the Comprehensive Physical Plan for South Campus is to restore both its physical beauty and its intellectual and social vitality. It will have a new purpose, focused on the interdisciplinary potential of four professions with an orientation to civic engagement and the urban setting. Its classic plan will be rehabilitated through judicious demolitions, strategically placed new buildings, a simplified loop road, new and restored quadrangles, and a revitalized landscape. And this centerpoint between our North and Downtown campuses will be once again the thriving heart of our university.
In 1930, the University Committee on Buildings and Grounds commissioned a new master plan by E.B. Green & Son. The firm also designed and oversaw construction of a wave of new buildings to implement the plan: Beck Hall (originally the University Bookstore, 1930), Crosby Hall (1931), Abbott Hall (originally Lockwood Memorial Library, 1933), Harriman Hall (originally Norton Union, 1934), Clark Memorial Gymnasium (1937), and Parker Hall (originally the Engineering Building, 1946). The 1930 plan guided the growth of the campus for more than 20 years, by which time the collection of campus buildings was ringed by a continuous loop road with a primary entrance from Main Street and secondary entries from Bailey Avenue and Winspear Avenue.

By 1960, however, the campus had succumbed to the pressures of rapid growth during the post-war boom in higher education. The siting of Diefendorf Hall (1953) followed the E.B. Green plan, forming a quadrangle with Abbott and Crosby halls. But the construction of UB’s health sciences complex – Farber Hall (originally Capen Hall, 1953), Sherman Hall (1958), and Cary Hall (originally the Health Sciences Building, 1960) – broke with the plan. So, too, did the construction of dormitories MacDonald, Michael, Schoellkopf, and Pritchard halls (1953-55), Kimball Tower (originally Tower Hall, 1957), and Goodyear Hall (1960).

A population explosion after UB became part of SUNY in 1962 brought a series of pre-fabricated buildings to clutter what had been planned as open space; introduced as “temporary” in 1966, most of them remain. The massive Squire Hall (originally the “new” Norton Union, 1962) and the nine-story Clement Hall (1964) tipped the balance of the campus away from its original intimate scale. By 1970, fully half of the Main Street frontage and acres on the Bailey Avenue side of campus were paved over for surface parking – cementing a shift in travel patterns that the 1930 plan, which emphasized park-like open spaces, could not have foreseen.

Later additions strayed even farther from the original inspiration for the campus. The Health Sciences Library (1985), which replaced Lockwood Annex, one of the largest “temporary” buildings, also disrupted the symmetry of Abbott Hall within the campus and presented a mostly blank façade to Bailey Avenue. The renovation and expansion of Squire Hall (1986) cut off a major pedestrian path along the ridge. The Biomedical Education Building (1985) and the Biomedical Research Building (1995) created a quadrangle with Cary and Harriman halls, but also completed the wall of buildings that separate one side of campus from the other.

"Proposed site for the University of Buffalo," 1907.

Eventually, the university would own the entire 154-acre property.

Landscape plan by Hallam L. Movius, 1920.

Aerial photograph of South Campus, 1922.

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Aerial photograph of South Campus, 1922.
1930 The university inherited a collection of facilities built for the Erie County Almshouse. Today, of the original buildings, only Hayes, Wende, and Townsend halls and a small service annex behind Hayes remain. Foster Hall, the first new campus building for UB, was completed in 1922.

1950 E.B. Green’s plan has been partially implemented with Foster, Crosby, and Norton Baker Harriman halls and Lockwood Library (later Abbott Hall) partially framing symmetrical quadrangles, and Hayes Hall, Clark Memorial Gymnasium, and the Engineering Building (later Parker Hall) partially framing a grand new lawn.

1970 Rapid growth has resulted in numerous departures from the campus plan. Temporary annexes have occupied the quadrangles and lawn, new towers and massive academic buildings have overwhelmed the intimate scale of the campus, and a sprawling health sciences complex has begun to form a wall along Bailey Avenue.

2009 South Campus has been subsumed with haphazard layout that makes many spaces feel empty and isolated from the surrounding neighborhoods. However, the fundamental structure of E.B. Green’s plan remains intact.

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**Analysis of Assets from the E.B. Green Plan**

- Escarpment and water feature
- Pattern of historic buildings and quadrangles along the ridge
- Major axes provide order and preserve views
- Main Street lawn
- Continuous loop road
- Courtyard open space
- Welcoming Bailey Avenue entrance
- Open corner for recreation

**Challenges:** Discontinuous loop road with redundant entry points.

**Assets:**
- Campus quadrangles (above) with views to historic buildings; activities along Main Street (right).

**Challenges:**
- A sea of parking.

**ASSETS AND CHALLENGES**

Despite these departures from the E.B. Green plan, the original campus assets that remain—the stately stone buildings, the classic pattern of intimate quadrangles and expansive lawns, the strong view axes—preserve the fundamental value of Green’s vision. And buried beneath the temporary buildings and surface parking is the structure of the campus as it was originally conceived: an uninterrupted lawn along Main Street, shaded with trees, graced by a pond, and highlighting the Onondaga Escarpment as a unique natural feature; the southwest corner of the campus dedicated to recreational use; a continuous loop road; and the welcoming campus entrances on both Main Street and Bailey Avenue. Together, the built and unbuilt elements of the E.B. Green plan provide solid guidance for restoring the beauty and vitality of the campus.

Another primary South Campus asset is the surrounding University Heights neighborhood. When UB purchased the almshouse property at the edge of the city, the surrounding area was rural. Today, the campus benefits from the housing, retail, and entertainment services the neighborhood offers; the neighborhood benefits from educational, cultural, and recreational opportunities the campus provides; and both community and university share the benefits of access to public transit at the Metro Rail station, bus hub, and park-and-ride lot. But there is room for improvement: to integrate the campus more fully into the community with better physical and programmatic connections, to improve safety and security, and to build on this multi-modal transportation center with improved transit access and appropriate new commercial and retail development.

The transportation assets of the campus provide other opportunities as well. Today, what were to have been grand lawns and beautiful open spaces under the E.B. Green plan have been eaten up by parking lots along the Main Street and Bailey Avenue frontages of campus. Smaller lots have also invaded the core of the campus. With the exceptions of the Hayes and Clark lawns, open spaces feel like leftovers. But there are ways to preserve automobile access to South Campus while expanding and improving the landscape for both university and community to enjoy, and restoring the campus core to a safer, more intimate pedestrian focus.

The campus roadways also provide opportunities for improvement. Today, what appears at first to be a “loop” road does not make a complete circuit; instead, drivers who enter the campus at the wrong place may find themselves directed back out to Bailey Avenue to start their search again. There are eleven different entrances to campus—five of them on Bailey Avenue alone—some of which connect to interior roadways, some of which only access parking lots, and with no particular hierarchy to distinguish a major entrance from a minor one. To add to the confusion, the roadways address some buildings at their fronts and others at their backs.

Fortunately, all these problems can be solved largely by relying on the strength and clarity of the 1930 plan to reinforce a coherent core of academic buildings, quadrangles, and open spaces; to reconnect views and pedestrian paths; to retrieve the Main Street lawn from asphalt; to create a complete ring road that is addressed by the fronts of buildings; and to provide a primary Bailey Avenue entrance with a grand sense of arrival.
The plan’s academic strategy for South Campus is to establish a new center of interdisciplinary professional education comprising the schools of law, education, social work, and architecture and planning, and some programs from the School of Management. All of these will migrate from North Campus save for architecture and planning, which already resides on South Campus. For a limited period all five health sciences schools will be on South Campus, providing an opportunity for the development of stronger interdisciplinary programs that can be relocated to South Campus.

Construction of a professional education center to support interdisciplinary study and continuing education will likely trail the arrival of the schools of law, education, and social work. Other programs such as UB-affiliated laboratory school and business incubators will also find a place here. As with the rest of the plan, the program and phasing for the evolution of South Campus is flexible. Likewise, the plan describes a framework for physical transformation of the campus that can and should be implemented regardless of which schools occupy it.

Together, the total program space on South Campus occupied by the professional schools, and the administrative and support and campus life programs accompanying them, will be 1.8 million net assignable square feet (NASF) – about the same as today, but with a different balance. Notably, there will be about 700,000 NASF dedicated to campus life uses, including housing, dining, recreation and wellness, arts and culture, and student activities – nearly twice the current amount of campus life program.

To accommodate the migration to South Campus, the plan includes a carefully considered combination of new construction, adaptive re-use, and selective demolition of obsolete structures. Overall, the plan seeks to balance the functional needs of the professional schools with the sustainable management of the existing building stock, and the cultural value or embedded capital and energy it represents.

In addition to the exhaustive facilities condition assessment that was conducted as part of the plan (see appendix), each building was carefully evaluated in relation to the programmatic needs of the schools to be located on South Campus, the historic, cultural, or architectural value of the building, its contribution to the campus setting, and its compatibility with the plan’s strategies for improving the vitality and beauty of the campus. All significant historic structures will be preserved. When newer buildings can be retrofitted for new purposes, they will be re-used. And when older buildings without historical or architectural significance cannot readily accommodate new uses, or conflict with major plan objectives for the campus, demolition is recommended.

The renovation of the former Acheson Hall to house the School of Pharmacy and Pharmaceutical Sciences, slated for completion in 2012, exemplifies the plan’s emphasis on sustainable development through the adaptive re-use of existing building stock.

Overall, the plan seeks to balance the functional needs of the professional schools with the sustainable management of the existing building stock, and the cultural value or embedded capital and energy it represents.

ASSESSING THE EXISTING BUILDING STOCK

To support these moves, UB’s 2008-2013 capital budget includes funds for the interior reconfiguration of Kimball Tower, which is slated for eventual demolition under the plan. The capital budget also provides for a new simulation laboratory for the School of Medicine and Biomedical Sciences in Farber Hall, another building marked for eventual demolition. These investments, amortized over the remaining lifespan of each building, may be considered minor in comparison to the benefits of uniting the School of Public Health and Health Professions, which has been scattered across as many as seven different buildings, to be consolidated in Kimball Tower. Much of Wende Hall has been renovated with an open plan that can accommodate use by the School of Architecture and Planning once the School of Nursing moves downtown.

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The Facility condition index (FCI) is calculated by dividing the cost of updating essential systems to A, B, C, Sherman, Parker Hall, Buffalo Materials Addition, Michael Hall, Schoellkopf Hall, 1953 0.72 Classroom and Support, student study space

Kimball Tower 1957 0.20 Classroom and Support, student study space

Macdonald Hall 1953 0.53 Undergraduate student residence

Pritchard Hall 1953 0.70 Support for medical school, School of Public Health and Health Professions

Michael Hall 1953 0.42 Undergraduate student residence and Student Health Center

Squire Hall Addition 1990 0.27 Clinic for School of Dental Medicine

Buffalo Materials Research Center 1980 0.53 Vacant

Parker Hall Additions 1964 0.26 Support space for medical school, School of Architecture and Planning

Ammon's Reference, Darlington, Henry A. J., J. C. Shaver, Father

**Development Sites**

Ultimately, the total amount of building space on South Campus will be about 2.8 million gross square feet (GSF). A total amount of 200,000 GSF or less than today, but accommodating the same total amount of academic, administrative, and support, and campus life programs. This is because a number of spaces on South Campus are currently vacant during ongoing renovations, including the entire block of Old Campus, Sherman, and Wende halls. These spaces, along with those to be vacated by the Health Sciences schools, will also provide "swing" space to accommodate migration while allowing for necessary demolitions.

Perhaps more important, the configuration of the building space on South Campus will be very different. The plan locates new building sites to create three distinct campus precincts. The professional schools will be organized into a newly cohesive Academic Precinct, each school housed in a building with its own front door on a complete campus loop road. At the core of this precinct, the Heart of the Campus project in Abbott Hall will consolidate library functions, flexible teaching and learning facilities, instructional and dining spaces, and administrative offices into one central location. The existing residence halls will become more comprehensive and attractive.

Sites for new development on South Campus will occupy existing parking lots and the spaces vacated by demolished buildings, and will be organized according to the fundamental principles of E.B. Green’s plan for the campus. Vistas and pathways along campus axes will be opened and extended, and new buildings and landscape will be converted into passive, active, and recreational spaces.

Although the population and square footage of buildings on UB’s South Campus will grow less than those on North and Downtown campuses over the coming years, it will receive an equal level of attention. A dynamic new academic identity as a center of interdisciplinary collaboration and community engagement by UB’s professional schools will give new energy and purpose to the campus. At the same time, the built places will be nurtured and integrated with new buildings and landscape into a cohesive, 21st-century learning landscape replete with state-of-the-art educational facilities and a broad range of campus life assets, many of which will also welcome public use.
The School of Architecture and Planning, in Hayes and Crosby halls, will benefit from a major renovation and expansion of its space. Two new additions on the back of Hayes Hall will create intimate courtyards as a focus for the school, with a grand entry from Clark Lawn and new indoor connections to neighboring buildings at the second story. Over the two-story addition, the iconic clock tower of Hayes Hall will remain visible from the interior of the campus. Once the School of Nursing moves downtown, the School of Architecture and Planning will gain additional space in Wende Hall.

A new building for the UB Law School will take a prominent place on the eastern side of the Academic Precinct, framing a grand new campus entry from Bailey Avenue, a new quadrangle with the back of Diefendorf Hall, and facing the southeast corner of Clark Lawn. Due to the orientation of the new campus entry, the UB Law School will be the first building most visitors see upon entering the campus from Bailey Avenue. The plan illustrates a building with its own interior courtyard space to provide a sense of intimacy.

A new professional education center, which will house executive education programs of the School of Management and accommodate continuing education programs for other units of the university, will take a site to the north of the UB Law School. There it will frame the opposite side of the new Bailey Avenue entry, and reinforce the quadrangle bounded by Harriman Hall and the Biomedical Education and Biomedical Research buildings. Close to the heart of the campus, in easy reach of the other professional schools, and situated on the loop road near Bailey Avenue, it will be well-located for shared uses and easy access by the public.

Once they are vacated by the School of Medicine and the School of Dental Education, two buildings will be renovated to house the School of Pharmacy. Two new additions on the back of Kimball Tower and the surrounding Quad buildings, no longer able to provide a competitive level of on-campus residential experience, will be replaced with contemporary low-rise graduate housing in a townhouse style. A number of the dorm rooms of Goodyear and Clament halls will be converted into apartments.

Along the edges of South Campus, an array of community-oriented facilities will connect UB to its neighbors. New trees, meadows, and ponds will enhance an extended Main Street lawn. A tree-lined path along Bailey Avenue, an expanded and modernized Clark Hall and adjoining fields will provide recreation opportunities for university and community; the renovated Allen Hall and a dramatic new amphitheater nearby will provide venues for civic and cultural activities; and a new laboratory school, designed for the research and practice of contemporary teaching and learning, will provide a stronger link between the Graduate School of Education and the community, and locate a neighborhood-oriented function at the southwest corner of the campus.

This vision for the future reveals and enhances the qualities of the original E.B. Green plan that still make South Campus a memorable place. New buildings, quadrangles, courtyards, and pathways along the plan’s formal axis will reinforce the historic character of the campus and create a beautiful, walkable academic core. A continuous loop road and two primary entries will form a clear circulation plan for vehicles. Enhanced programs, new facilities, and revitalized landscapes and recreational areas will bring the university and community together year-round.

The plan’s flexible phasing for South Campus will allow for the rational sequencing of demolition and new construction over a long period of change. Buildings built with the undistinguished design, high energy requirements, and lower-quality construction materials and methods of the 1950s through 1970s will be replaced with state-of-the-art new facilities. Carefully selected plantings and reduced impervious parking, roadway, and pathway surfaces will help minimize stormwater flows off-campus.

In sum, the plan’s transformation of South Campus will harmonize the needs and aspirations of the 21st-century university with a 200-year history of its past.

The northern end of the campus will continue to be a mainly residential neighborhood, with student residences conveniently located between the Academic Precinct and the shopping and entertainment at University Plaza. The aging Kimball Tower and the surrounding Quad buildings, no longer able to provide a competitive level of on-campus residential experience, will be replaced with contemporary low-rise graduate housing in a townhouse style.
South Campus: Discovering

Bringing the schools of law, education, social work, architecture and planning, and parts of the School of Management together on a single, well-defined campus will make interdisciplinary collaboration easier. Changes in the design and composition of facilities and spaces will promote the serendipitous exchanges that add creativity to the process of discovering, and make South Campus a place of inspiration once again. And the campus will become more open to the community and region, as befits a center for professional schools with an urban orientation and a mission of civic engagement.

FACILITATE INTERDISCIPLINARY COLLABORATION.

▸ Reorganize the campuses around interdisciplinary work. The cohabitation of the four South Campus professional schools on the edge of the city promises to create a fertile environment for the kind of hands-on study in which these professions thrive. The potential is great for work on this campus – and in outreach to the community – to support initiatives in the strategic strengths "Health and Wellness Across the Lifespan" – including the schools of education, pharmacy, public health, and social work – and for the kind of hands-on study in which these professional schools thrive. The potential is great for work on this campus – and in outreach to the community – to support initiatives in the strategic strengths "Health and Wellness Across the Lifespan" – including the schools of education, pharmacy, public health, and social work – and on the kind of hands-on study in which these professional schools thrive.

▸ Develop shareable resources. While each of the professional schools on South Campus will have its own facility, they will all share key academic, administrative and support, and campus life resources. Once the collection of the Health Sciences Library has moved downtown with the health sciences schools, Abbott Hall will house collections from across the professional schools, with a central grand reading room, reconfigurable study spaces, and library services enhanced by updated technology.

The schools on South Campus will also share a new professional education center (PEC), a centrally located base for interdisciplinary work throughout UB. Classrooms, meeting rooms, on-demand technology services, flexible faculty support space, lounges, a sit-down restaurant (see On-campus Dining below), and possibly residential suites for visiting students and faculty will create an intense short-term living-learning experience for participants in UB’s continuing education and executive education programs. The PEC, near the School of Law and Abbott Hall and framing the new grand entry from Bailey Avenue, will be easily accessed by both public transit and private car.

▸ Create collaborative campus environments. With the sprawling health sciences complex tamed by judicious demolitions, South Campus will become easier to walk across. Large lecture halls will be supplemented by flexible, multipurpose, technology-intensive classrooms and informal learning spaces, all located near new dining venues and a student union in the Heart of the Campus Precinct.

▸ Extend the reach of our research and knowledge.

▸ Connect research and business development facilities. South Campus will be a favorable location for business incubator development because of its new interdisciplinary focus, access to transit, connections to both of our other campuses, and the availability of buildings or sites in between downtown Buffalo and Amherst. Without leaving campus, faculty researchers and their students will be able to translate their ideas and innovations into commercially useful products and services, and socially relevant plans and policies.

The plan’s program for South Campus is flexible enough, and the campus of the campus large enough, that space for a variety of incubators can be provided. Existing buildings that could eventually house business incubators include Squire and Kapoor halls. Potential future development ideas for new incubator and academic buildings include spaces opposite Parker and Kapoor halls. Each school and interdisciplinary collaboration will have its own ways to apply its knowledge in the world, and South Campus will have the facilities to support them.

▸ Collaborate with partners on new facilities. Both UB and the Buffalo Public Schools would benefit from a new laboratory school located on South Campus. The Graduate School of Education would have a conveniently located facility for educational research, where both education and social work students would also have the opportunity to learn in a community-oriented setting and put their research to public use. The surrounding neighborhoods would gain a cutting-edge educational and community center. The school would occupy its own distinct part of the campus at the highly visible corner of Bailey and Winspear avenues, while sharing adjacent recreational facilities with the university and community.

SUPPORT WORLD-CLASS TEACHING.

Although South Campus has plenty of classroom seats – 32 percent of the university total – much of this is in large lecture halls. Nearly two-thirds of all seats on South Campus are in departmentally controlled spaces, and there is not a single centrally scheduled seminar space on the entire campus – a major deficiency. The new mix of disciplines and the commitment to interdisciplinary discovery on South Campus will require adjustments in the size, type, configuration, technology, and management of its classroom spaces.

More central scheduling will be necessary to support cross-disciplinary classes or lectures with campus and community-wide interest and to maximize the efficiency of classroom utilization. The existing centrally scheduled lecture halls in Diefendorf Hall will be supplemented by new clusters of flexible classrooms in

**HEART OF THE CAMPUS**

The first phase of the Heart of the Campus initiative on South Campus will transform nearly all of Abbott Hall’s lower four floors. As health sciences resources are relocated downtown, Abbott will absorb print and on-demand technology services, on-campus Dining, andimprovement of building accessibility.

However, Abbott Hall will also accommodate 21st-century library functions, including a new cybrary, a digital media resource center, a cluster of flexible and experimental classrooms, a technology support center, and a distance learning facility. These will be supplemented by a faculty hub and offices, exhibit areas, and informal study spaces throughout the building, and a first floor café will open onto a new, sun-filled facing outdoor plaza. When this phase is complete, Abbott Hall will be the center of academic life on South Campus.
STIMULATE LEARNING EVERYWHERE ON OUR CAMPUSES.

➤ Support a range of faculty work arrangements.
To support cross-disciplinary research and teaching and facilitate the phased migration of academic programs, new faculty hubs (see Chapter 3) in Abbitt Hall and the PEC will each provide a “home away from home” with bookable offices and workstations for faculty traveling between campuses. Flexible meeting and work spaces will be supported by on-site information technology staff. Nearby dining venues will provide a more relaxed atmosphere for faculty collaboration.

➤ Support a range of teaching and learning activities and work styles.
Both Abbitt Hall and the professional education center will house hybrid combinations of teaching, media, and tech support hubs (see Chapter 3) to facilitate cross-disciplinary teaching and learning. And each school will have specialized teaching spaces that cater to that discipline, such as labs, studios, or case study classrooms. The proposed laboratory school (see above) will provide a real-world research environment for the schools of education and social work, and an opportunity for direct service activities by students at all of UB’s professional schools.

➤ Provide a campus-wide system of convenient, comfortable places to study and relax before and after class.
The classrooms, labs, studios, and offices of every academic building will be connected by a network of study hubs, front porches, and learning corridors (see Chapter 3) tailored to the needs of the school. The reading room in Abbitt Hall will also have a variety of settings for individual or group study. And each of the new graduate student residences will have spaces for both individual and group work.

➤ Balance distribution of the learning landscape with concentration of resources.
Each school will develop its own network of spaces based on its own needs. It is likely, however, that those spaces will prove attractive to students from other schools seeking a change of environment. Overall, the learning landscapes on South Campus will find a center of gravity in the core of the Academic Precinct: the Heart of the Campus at Abbitt Hall, the learning corridors of Squire Hall, the spaces for student activity in Harriman and Squire halls (see Student Activities below), and the PEC.

ENRICH CAMPUS LIFE.

ON-CAMPUS DINING
South Campus has long been underprovided, with severely limited hours, locations, and menu choices. The arrival of the schools of law, education, and social work will bring a greater need to serve a larger afternoon and evening professional and commuter population. With more community-oriented programs on South Campus, including educational, recreational, and arts and cultural activities, and more people moving through an expanded University Station, on-campus dining venues have the potential to draw more neighborhood customers.

➤ Provide more and better dining choices on campus and align dining with demand.
In the short term, a new café at Abbitt Hall, opening up to a new sunny plaza on the south side of the building, will help meet the immediate demand for better on-campus dining. In the middle term, the executive programs and faculty activities at the new professional education center will create a demand for “white tablecloth” restaurant service in that building. A new central kitchen at the PEC can serve the restaurant and the existing dining venue at Harriman Hall; removing the kitchen from Harriman will allow the expansion and improvement of the space as one or more cafés.

In the longer term, the School of Dental Medicine’s move from Squire Hall will free up a large first-floor area that will be reconfigured as a food court around a landscaped central glass-roofed atrium or winter garden. A café at the expanded transit pavilion atop University Station (see Connecting below) will draw patronage from both UB and commuter populations. And a combination university market (see Chapter 3) and café in one of the new on-campus graduate student residential buildings will provide a new place to meet and linger within the University Housing Precinct, and convenient mini-mart-style food shopping as an alternative to the supermarket in University Plaza across Main Street.

➤ Adjust operations to maximize both patronage and efficiency.
New dining venues will be concentrated in Abbitt, Harriman, and Squire halls as a means to control costs and promote interdisciplinary contact; but individual schools may also have their own vending areas and cafés to serve populations that dedicate long hours to work within their respective disciplines. The central kitchen at the PEC can support the restaurant and other on-campus catering needs. The existing central kitchen at the Main Street Market and Dining Center will continue to serve students at Downtown and Clement halls, and could also provide off-site food preparation for some café venues.

ON-CAMPUS HOUSING
Graduate and professional students will make up a growing proportion of South Campus students – now about 43 percent but ultimately 70 percent of the total – but classes in the professional schools will continue to draw undergraduate students. Other undergrads will choose to live on South Campus to take advantage of its classic collegiate environment and strategic location between North and Downtown campuses as well as its housing choices, transportation connections, and neighborhood amenities.

➤ Explore mixed housing types and encourage mixed campuses.
A 2020 UB study confirmed the viability of converting existing dormitory-style housing in Goodyear and Clement halls into duplex townhouse-style apartments. This could be done on an incremental floor-by-floor basis that would not disrupt continued occupancy of each building. Gradual conversions of those buildings would test the market for such units, provide flexibility in the South Campus housing strategy, and maintain variety in the UB housing inventory. More or fewer conventional dormitory rooms might be retained, depending on demand.

FOOD VENUES
1. Fending area
2. Cafe
3. House kitchen
4. Restaurant/pub
5. Dining hall
6. University market
7. Central kitchen service
8. Existing
9. Proposed

TEACHING AND LEARNING HUBS
1. Study hub
2. Faculty hub
3. Teaching/media/tech hub
4. Classroom cluster
5. Front porch
6. Learning corridor
7. Winter garden
8. Translucent pavilion
9. Transit pavilion
10. Coffee café
11. Office space
12. Cafe
13. Library

CAMPUS LIFE
1. Main-use campus life building
2. Winter garden
3. Translucent pavilion
4. Campus-to-campus portal
5. Student kitchen
6. Service

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Building UB—The Comprehensive Physical Plan
Athletics and Recreation Plan

Create a living-learning environment and pursue more flexible financing models. All of these on-campus housing options will have study nooks, media lounges, and multipurpose spaces that can be reconfigured for use as classrooms, meeting rooms, and arts and entertainment venues for exhibits, performances, and film screenings. These spaces will allow the extension of the learning landscapes into the University Housing Precinct and they can help broaden the options for financing South Campus housing.

OFF-CAMPUS HOUSING

Although it will support student life throughout Buffalo and its suburbs, UB’s Office of Off-Campus Student Services, located in Allen Hall, was created with the University Heights neighborhood in mind. With plentiful housing stock a short walk from South Campus, University Heights and other nearby neighborhoods have long been a favored location for UB students choosing to live off-campus. However, the youthfulness and short-term tenancy of these residents does not always make them good neighbors, and they have also been targets for crime.

Improve off-campus housing conditions. Programs overseen by the Office of Off-Campus Student Services include monitoring of party announcements, coordination of university response to neighbor complaints, a safety information campaign for students, and an annual University Heights block party with free music, food, and presentations on safety, noise, property maintenance, and other quality-of-life issues. This effort will be supplemented by lighting, security cameras, and emergency phones throughout South Campus, and by joint patrols on Main Street by the University Police, Buffalo Police Department, and the Niagara Frontier Transportation Authority (NFTA), all implemented in 2009.

The growth in the proportion of graduate and professional students studying on South Campus may also provide benefits to the University Heights neighborhood, as the median age of students is likely to rise, providing more mature tenants in housing close to campus.

ATHLETICS, RECREATION AND WELLNESS

Clark Hall has served UB for more than 70 years as the sole recreation facility on South Campus. It holds an important place in the E.B. Green master plan as the boekend to a great lawn and a gateway to the playing fields at the southeast corner of campus and to the University Heights neighborhood beyond. Clark Hall and the other recreation facilities described below will be available to both UB and the public.

Provide expanded and improved facilities. Expanded in keeping with the 1930 plan, Clark Hall can continue to serve the recreation needs of a reinvigorated South Campus very well. A renovation and addition of approximately 40,000 square feet will add general fitness, training, and support space to the existing gymnasium, swimming pool, and courts.

Provide more multipurpose fields. The center of Clark Lawn will retain its use for informal recreation, and the southeast recreation area will be reconfigured with a new all-weather field. The cinder jogging track around the field will be re-routed through the landscape to create a fitness trail, an amenity that the community lacks.

Utilize natural assets for year-round recreation. Winter recreation such as cross-country skiing and snowshoeing will be possible as off-road pedestrian and bike paths form multiple possibilities for continuous loops around the campus. New shallow retention ponds on the Main Street lawn, part of our campus beautification and stormwater management strategies, will also be suitable for supervised ice skating in winter.

Relocate wellness services. With new student, faculty, and staff wellness centers located on North and Downtown campuses, and an on-campus population focused on graduate students, there may no longer be a need for a stand-alone wellness center on South Campus. Pending review of local regulations and other issues, the existing student health center on campus will not be replaced when Michael Hall is demolished to make way for new graduate student housing.

ARTS AND CULTURE

UB’s arts and cultural facilities and programs on South Campus enjoy strong community patronage. Hayes Lawn hosts the popular UB on the Beach series each summer. Allen Hall, the home of UB’s National Public Radio affiliate, WBFO 88.7 FM, also houses recording studios as well as a 150-seat performance hall and a community meeting room that attract a variety of cultural, musical, and civic events. The adjoining outdoor space accommodates a weekly farmer’s market and an annual neighborhood block party.

Provide new publicly accessible arts and cultural facilities. A new outdoor amphitheater, embedded in the landscape and using the exposed Onondaga Escarpment as a backdrop, will provide a unique year-round performance venue near Allen Hall. The new laboratory school, the classroom cluster in Squire Hall, and other new facilities could also include studies for community arts classes and venues for performances.

Integrate arts and culture into campus life. Informal arts programming by students, faculty, and staff will be encouraged to take advantage of new informal dining, study, and learning spaces. Rotating or permanent outdoor art installations will be installed to highlight the major access points to the campus (see Connecting Below).
South Campus: Connecting

The University at Buffalo has had a symbiotic relationship with the neighborhoods surrounding its campus on Main Street for the better part of a century, and the fate of university, culture, recreation, and community are deeply intertwined. Housing, retail services, and entertainment venues in the neighborhood are vital to the health of South Campus. Opportunities for education, culture, recreation on campus are important for the neighborhoods. Access to transportation, and the security and quality of the built environment, are of great concern to both. As noted above, the arrival of the professional schools to South Campus will make strong physical and programmatic campus-community connections more important than ever. And the repositioning of the campus as the cornerstone of a developing corridor of economic activity, stretching from downtown to North Campus, will make improved transportation options essential to both campus and community. The plan’s strategies for connecting at South Campus will build on this existing assets and strong relationships with the surrounding neighborhoods.

BRING US CLOSER TO OUR NEIGHBORS.

► Provide more community-oriented spaces. Many of the facilities planned for South Campus will serve both campuses and community. The renovated Allen Hall amphitheater nearby, expanded indoor and outdoor recreational spaces throughout the campus, the PEC, the laboratory school, the transit pavilion (see Broad Transportation Options below), and many dining venues will all be designed explicitly to welcome community use.

The schools of law, social work, and education oversee an array of clinics, outreach programs, and other service activities. Some of these are likely to be housed in the UB Downtown Gateway (see Chapter 6), but some will likely move to South Campus with the professional schools, joining community-oriented programs of the School of Architecture and Planning. Public clinics associated with the health sciences schools will remain until the sponsoring schools relocate to Downtown Campus, where they will remain easily accessible by public transportation.

► Physically integrate the campuses into the region. South Campus has always been open to the community. There are few fences, no gates that close, no barriers to those who would visit our facilities or stroll across the grounds. This plan reviews UB’s commitment to keep its campus open — safe and secure, but open. For example, the southwest recreation area will be treated like other public amenities: there will be no locked gates, but there will be a clear place of entrance, with signage to advise visitors when the recreation area is open or closed.

Better physical connections will help everyone take advantage of shared assets. Pedestrian crossing improvements will provide safety to campus and community, and encourage access to neighborhood businesses on Main Street and Bailey Avenue. On and off-campus bike paths will link South Campus to a regional network of parks and recreation areas. See Broad Transportation Options below for more details.

► Improve safety and security. With open campuses comes a responsibility to provide safety and security for all who use UB’s facilities for legitimate purposes. The plan incorporates the following recommendations from University Police, based on the work of security consultants Business Protection Specialists, to improve safety and security on South Campus:

• Install throughout the campus new exterior lighting, security cameras, and emergency ‘blue’ phones, with public-address speakers for use during campus-wide emergencies. This project is slated for completion by the end of 2019.

• Locate landscaping and pathways to provide lighting, unobstructed sightlines and improve access to all parts of the campus by police and emergency vehicles.

• Improve lighting in parking lots, and design new parking structures with restricted access and glass-enclosed stairwells and elevator lobbies clearly visible from the exterior.

• Collaborate with adjacent property owners, such as St. Joseph University Church, on improvements to pathways to and from the campus that are on private property.

• Increase the presence and visibility of uniformed University Police officers on campus.

• Build on collaborations with the Buffalo Police Department and NFTA to share equipment and provide video monitoring.

To support these efforts, South Campus needs a new University Police substation with modernized dispatch and monitoring facilities, dedicated parking, and a backup university-wide emergency operations center. The current facility, located in a room in Goodyear Hall, is inadequate to the security needs of the campus.

The plan locates the substation in a new graduate student housing building atop the ex-corporate, overlooking Allen Hall and the Main Street Lawn, to provide high visibility and easy access to the new loop road and major pedestrian paths. Staffed desks at the transit pavilion, Goodyear Hall entrance, and other key locations should also be staffed.

► Support stronger campus-community relations. The location of UB’s Office of Off-Campus Student Services in Allen Hall represents a strong step forward for campus-community relations at South Campus. UB will continue to support the efforts of its students to become responsible citizens of the University Heights neighborhood as we expand our community-oriented facilities and programs on South Campus.

GROW IN CONCERT WITH OUR COMMUNITIES.

► Encourage mutually beneficial development. Hundreds of millions of dollars in ongoing and planned investment in South Campus facilities, infrastructure, and landscapes should provide confidence to our neighbors in the future of the campus and the surrounding neighborhoods, including parts of Eggertsville in the Town of Amherst, and University Park and University Heights in the city of Buffalo.

While UB’s control over development in the area is limited, it can collaborate with municipal agencies, community organizations, and the private sector to stabilize the local real estate market and encourage certain kinds of growth that will benefit both university and community. The plan’s recommendations align with the comprehensive plans of Buffalo and Amherst, and the private sector to stabilize the local real estate market and encourage certain kinds of growth. The plan’s recommendations align with the comprehensive plans of Buffalo and Amherst, and the private sector to stabilize the local real estate market and encourage certain kinds of growth.

Transit Oriented Development concept on Main Street

TRANSPORTATION DEVELOPMENT

Transit Oriented Development (TOD) is a well-tested approach to maximizing access to public transit and minimizing parking and automobile dependency. It works by targeting transit station areas or other sites of high transit capacity for residential and commercial mixed-use development. When people live or work near transit, they are more likely to use transit. Likewise, when their destinations are well-served by transit, they are more likely to take the bus or train.

Underdeveloped commercial properties across from Main Circle are a promising site for TOD near South Campus. A mid-rise building with retail uses on the ground floor and apartments on the floor above would benefit from proximity to the NFTA Metro Rail University Station and bus loop, as well as community destinations in the University Heights neighborhood and South Campus.

ALLEN HALL CAPITAL PROJECTS

Allen Hall is home to UB’s NPR affiliate, WBFO 88.7 FM, and its 150-seat auditorium is a frequent venue for lectures and concerts. It is the campus headquarters for cultural programs such as UB on the Green, services such as the University Community Farmers’ Market, and community development efforts such as the UB Home Loan Guaranty Program, and it houses UB’s Office of Off-Campus Student Services.

The university’s investment of $4 million to renovate Allen Hall with a new glass façade has created a stronger, more transparent presence on Main Street. Planning is under way to refashion the building as a “community union,” with improvements to the building’s theater interior and a more welcoming landscape treatment of its forecourt.
**BROADEN TRANSPORTATION OPTIONS.**

UB’s South Campus has strong transportation assets on which to build. Its classic quads and park-like lawns welcome pedestrians. It is home to University Station, northern terminus of the NFTA Metro Rail; a hub for ten Metro Bus routes; and a major park-and-ride commuter lot. Moreover, South Campus is surrounded by mixed-use development and relatively high population and job densities on a conventional street grid – supportive conditions for transit as well as pedestrian and bicycle access.

But commuters and visitors to South Campus do not fully enjoy the benefits of these assets, and the campus is most commonly visited by automobile. At peak times, 92 percent of the 3,547 parking spaces on campus are occupied. Traffic backups are commonplace on the arterials surrounding the campus. And the ubiquity of parking lots, roadways, and service areas can make the campus seem like a place built for cars rather than people.

As explained in Chapter 3, all of UB must undergo a long-term evolution to reduce dependence on automobiles, particularly single-occupant vehicles. This will require physical changes to each campus as well as university-wide policy shifts. Because of the strength of its existing transportation assets, South Campus is likely to lead the way.

**CREATE WALKABLE, BIKE-FRIENDLY CAMPUSES.**

- **Encourage year-round walking and biking.** The intimate quadrangles and historic character of South Campus are a fine setting for bustling pathways, and the short trip to housing in the surrounding neighborhoods promotes walking and bicycling commuting. Implementation of the plan will add more pathways with more direct routes across the campus, remove some buildings that block direct pedestrian routes, concentrate new buildings within the core of the campus, improve pathway materials and simplify maintenance and plowing regimens, and provide windbreaks to improve outdoor comfort during the winter.

  New pathways on South Campus will also lead to proposed new crosswalks providing better connections to community destinations, particularly across Main Street. UB will work with the City of Buffalo and New York State Department of Transportation (NYSDOT) to implement these crosswalks and new or relocated traffic signals.

- **Prioritize pedestrians and bikes in the campus core.** UB’s revised service routes and areas plan for South Campus, released in April 2009, represented an important first step toward a safer and more pedestrian-friendly academic core. Changes under the Comprehensive Physical Plan will further alleviate conditions that can cause conflicts between pedestrians, bikes, and cars:
  - Temporary buildings in the campus core will be demolished, eliminating the need for service access.
  - A complete campus loop road (see Improve the Fit between Cars and our Campuses below) will clearly delineate the boundary of the pedestrian-oriented core. All paths, drop-offs, and service areas within the loop road will be constructed of materials with a distinct color and texture to signify the prioritization of pedestrians.
  - Short spurs off the loop road will provide more direct access to most buildings within the Academic Precinct. Where existing buildings cannot be accessed by a short spur, a single pedestrian path will be designated to allow service access. Such paths will feature clear, consistent signage to limit speeds, advise drivers to stop for pedestrians, and warn against unauthorized vehicle access.
  - Where it cannot be accommodated within a building, some service parking will be incorporated into widened pedestrian paths. Dedicated service parking areas within the core will be kept to a minimum in order to discourage long-term parking.
  - **Improve commuter bike routes.** New clearly marked on-street routes from South Campus will provide bicyclists with more options for traveling to North and Downtown campuses, off-campus housing, and other resources along the way. As noted above, the campus core will be reserved for pedestrians and bicyclists, and it will be connected to the campus edges by new on-street and off-street shared paths. A broad new tree-lined path along Bailey Avenue and a winding path through the Main Street and Hoyes lawns will provide alternative routes for biking across the campus.

- **Enhance on-campus bike facilities.** Bike racks on South Campus – none of them sheltered – are often at or near capacity when classes are in session. New sheltered bike racks will be provided at high-traffic locations throughout the campus. There will also be two new bike stations with racks, tool kits, bike lending, and lockers: in the expanded transit pavilion atop University Station (see below), and in the new addition to Clark Hall, where showers and changing rooms will also be available. These facilities will supplement the three existing Buffalo Blue Bicycle hubs on campus.
Provide Smooth Transit Connections.

- Improve transfers between modes of travel. University Station is the second busiest stop on the Metro Rail, with approximately 2,700 weekday boardings. In 2009, only 12 percent of this traffic was attributed to UB. If any of the public transit improvements proposed in Chapter 3 are implemented, use of the station by both the UB community and residents of the Buffalo region will increase – perhaps dramatically.

To accommodate and enhance increased transit ridership, the existing upper entrance to University Station, opposite Abbott Hall, will be further expanded as a multi-modal transit pavilion designed to facilitate transfers between the Metro Rail and Bus, UB inter- and intra-campus shuttles, bicycles, and foot traffic.

A new café and vending area will provide a comfortable place to have a cup of hot chocolate while waiting for a UB shuttle, to signal or “flag” a stop at any point along its route. New bus shelters will also be provided at high-traffic locations along the shuttle route.

Convenient transfers between the shuttle and the Stampede, or its proposed replacement by a University Bus Rapid-Transit (U-BRT) system, will be provided at the transit pavilion and new bus shelters in the University Housing Precinct. Improved shuttle service and transfers will allow the Stampede or U-BRT to make fewer stops on South Campus, reducing the total travel time between campuses. Stampede or U-BRT service to South Campus will also be improved by roadway and route changes that will reduce conflicts with “kiss-and-ride” drop-off traffic and allow the Stampede to avoid left turns on its way onto and off the campus.

The extension of the Metro Rail to North Campus requires much more study. The plan illustrates two possible routes, suggested by a Regional Plan Association study, which would continue underground from University Station until they reach nearby arterial roads that can accommodate an above-ground system alongside vehicular traffic. For more details on new bus shelters, UB Stampede improvements, the U-BRT, and the Metro Rail extension, see Chapter 3.

- Match shuttle service to demand. If UB and the NFTA are successful in improving the level of public transit service to UB’s campuses and implementing a “Uni-Pass” providing subsidized Metro Rail and/or Metro Bus travel to the UB community (see Chapter 3), regular UB shuttle service between South Campus and downtown should be replaced by the Metro Rail. However, supplemental shuttle service between the two campuses may continue if demand warrants it, particularly late at night and during periods of reduced Metro Rail service.
**IMPROVE THE FIT BETWEEN CARS AND OUR CAMPUSES.**

- **Create functional loop roads.** The demolition of the Cary-Parmer-Sherman complex will allow for the creation of a continuous loop road on South Campus. Circling the Academic Precinct, Hayes Loop Road will provide easier emergency vehicle shuttle, drop-off, and service access to all academic buildings. To help reduce traffic speeds and make pedestrian crossing safer, traffic lanes will be narrowed and metered parking added along one side of the loop road. Despite these major changes, much of the existing roadbed will remain intact.

  The loop road will be accessed by a reduced number of direct connections to surrounding city streets. A reoriented Goodyear Road, providing access to the University Housing Precinct, will be aligned with the cross-campus axis that runs through the centers of Parker, Abbott, and Squire halls. Sherman and Coal roads, which provide redundant parallel entrances from Bailey Avenue just a few hundred feet apart, will be replaced by Abbott Road, a single grand entry aligned with the Buffalo VA Medical Center entrance, improving traffic signalization and distinguishing this new second front door to South Campus from other access points.

- **Make pedestrians and bicyclists more visible to drivers.** As at UB’s other campuses, South Campus roadways will feature sidewalks along both sides, prominent crosswalk markings, and “share the road” markings and signage alerting drivers to watch for bicyclists. Two roadway sections where heavy pedestrian cross-traffic is anticipated will be designed as shared plazas, with raised roadbeds, patterned paving, and reduced-speed signage: the stretch of Hayes Loop Road between the transit pavilion and Abbott Hall; and the part of Abbott Road that lies in the pedestrian-priority zone within the loop road. See Chapter 3 for more details on shared plazas.

- **Build parking garages.** Parking lots occupy near-ly 28 percent of South Campus. In addition to increasing the quantity and decreasing the quality of stormwater flows and contributing to the urban “heat island” effect, they create a perceptual barrier between the campus and the surrounding neighborhoods, particularly Main Street businesses that are popular with the UB community. The lot between the South Campus residential district and the retail and entertainment services of University Plaza is the most accident-prone location on campus.

Garages will allow for the elimination of all surface parking from the pedestrian-priority zone within the Hayes Loop Road, and nearly all surface parking from the Main Street frontage, which will be converted into parkland as envisioned by E.B. Green’s 1930 plan for the campus. As detailed in Chapter 3, the consolidation of parking lots into garages will also mitigate the environmental impacts of cars on campus, and parking pricing that can encourage more efficient peak/off-peak sharing of each parking space. Extensive safety features will ensure that garages are accessed only by people parking in them, and that entrances, lobbies, and stairs are highly visible from the exterior.

- **Make parking lots pedestrian-friendly.** New parking lots along Bailey Avenue will be more compact, and separated by landscaped spaces to preclude the appearance of a “sea of parking” and reduce pedestrian travel distances. Both new and existing lots will be surfaced with porous paving where possible, landscaped with bioswales and trees to collect and filter stormwater, attenuate winds, and provide shade (see Placemaking below). Both the landscaping and new lighting will be designed to enhance sightlines and maximize a feeling of safety and security.

**PROMOTE SUSTAINABLE TRANSPORTATION ALTERNATIVES.**

Because the planned population increase for South Campus will be modest, the total demand for on-campus parking is actually expected to decrease as incentives to use alternative forms of transportation begin to work. The university-wide Transportation Demand Management (TDM) program described in Chapter 3 will encourage walking, biking, carpooling, and using UB or public transit to access South Campus. The proposed NFTA “Uni-Pass” will likely have a particularly significant impact on South Campus parking demand because the campus is already well served by public transit.

Because all parking on South Campus will be located within a five-minute walking radius of the entire academic core, and because most of the parking on campus will be within the new garages—unlike North Campus—there will be no additional premium or proximity fees for parking in garages on South Campus. Instead, the garages on South Campus, like the re-landscaped and relocated surface lots, will be paid for by the other means described in Chapter 3.

**PROVIDE SUFFICIENT PARKING TO MEET DEMAND.**

The plan’s strategy for parking on South Campus seeks to reduce parking demand through TDM measures while maintaining an adequate—a but not plentiful—parking supply. Thus, the strategy compensates for most of the spaces lost when surface lots are replaced by new buildings or landscape. The supply illustrated by the plan (3,152 parking spaces) will be adequate to meet projected demand when aggressive TDM strategies are employed, but it does not assume the replacement of the UB Stampede by U-BRT or the extension of the Metro Rail to North Campus (see Chapter 3). New on-street metered parking on one side of Hayes Loop Road and both sides of Goodyear Road will provide short-term parking for visitors and for staff, faculty, and students who drive to campus on an occasional basis. These will also facilitate move-in and move-out at the University Housing Precinct.

**SOUTH CAMPUS PARKING DEMAND PROJECTIONS (by parking spaces)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Parking Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>3,292</td>
</tr>
<tr>
<td>Plan build-out</td>
<td></td>
</tr>
<tr>
<td>No change in TDM</td>
<td>3,508</td>
</tr>
<tr>
<td>with modal TDM</td>
<td>3,344</td>
</tr>
<tr>
<td>with aggressive TDM</td>
<td>2,845</td>
</tr>
<tr>
<td>with one-seat ride</td>
<td>2,599</td>
</tr>
</tbody>
</table>
CLARIFY CAMPUS NAVIGATION.

South Campus is a product of incremental growth that, for the last 50 years, has scrambled the clear organization of buildings, roadways, pathways, and open spaces established by the original campus master plan and its initial implementation. While the distinctive historic quality and consistency of the campus core is a significant aid to navigation, the campus as a whole lacks a consistent, coherent wayfinding system.

Create visitor centers. In addition to facilitating transfers for users of public transit, UB shuttles, bikes, and the nearby kiss-and-ride and park-and-ride lots, the new transit pavilion atop University Station will also be the visitor center for South Campus, with a campus map and prominent displays highlighting UB events and programs that promote stronger campus-community connections.

Provide an unbroken chain of information to visitors. The reorganization of South Campus roadways and open spaces under the plan, the demolition of temporary buildings, and the construction of new facilities will provide an opportunity to improve navigation to and around the campus. There will be no “front” or “back” to South Campus; the wayfinding strategy will equally address the campus from Main Street and from Bailey Avenue. Thus the plan will:

• Coordinate approach signage. Coordination is recommended between UB, NYS DOT, the City of Buffalo, and the Town of Amherst to properly and consistently sign the approaches to South Campus from the region’s highways.

• Emphasize campus gateways. From the southern approach along Main Street, the visitor or passerby is greeted by the “postcard” view of the Hayes Hall clock tower, a successful gateway experience that provides a sense of arrival and reflects the historic identity of the campus. The two other campus gateways do not fulfill these functions.

The primary campus view from the gateway at Bailey and Winspear avenues is of the pump stations that provide South Campus with its water supply. Although it is not illustrated in this plan, UB will give serious consideration to relocating these relatively new facilities to the west. If the cost and infrastructural logistics prove to be prohibitive, the pump stations can be screened off by landscaping while new signage and possibly artwork are used to create a more suitable gateway. The design of a new laboratory school and, at night, sensitive lighting of the distinctive Mackay Heating Plant chimney can add to this gateway’s character.

The gateway at the convergence of Main Street and Bailey Avenue, which features signage and a stand of trees, is compromised by the NFTA Metro Bus layover area between it and the rest of the campus. The removal of surface parking from the nearby Main Street Lawn and more intensive and consistent landscape treatments along Main Street and Bailey Avenue can help improve the visual connection of this gateway to the rest of South Campus.

• Distinguish between major and minor entranc es. The perimeter of South Campus is peppered with entry points, with no distinction between major and minor ones. The plan establishes two clear, equally important primary visitor entries: with ceremonial landscaping and prominent signage: from Main Street at Main Circle, and from Bailey Avenue at the new Abbott Road. Other entrances will have minimal signage directing drivers “in the know” to the University Housing Precinct, the laboratory school, the Service Precinct, and the parking garages near Bailey and Winspear avenues.

• Simplify vehicular navigation. The reduction of the number of entry points, the creation of a complete loop road, and the consolidation of parking facilities will make it easier for drivers to find their destinations. Each garage and lot will be named for the nearest entry.

• Give every building a recognizable street address. The reorganized campus roadways will provide nearly every academic building on South Campus with a Hayes Loop Road address. Three exceptions – Abbott, Harriman, and Diefendorf halls – will have addresses on the new Abbott Road. All existing and new residential buildings will have addresses on Goodyear Road. Together, these changes will put the buildings of South Campus on SPS-based maps while vastly simplifying navigation for visitors, emergency responders, and service providers.
South Campus: Placemaking

Many of the strategies described above under Discovering and Connecting also fall under the rubric of placemaking. In particular, the creation of a learning landscape focused on the heart of the campus at Abbott Hall, new facilities for recreation, arts and culture, and student activities, the simplification of campus roadways, and the relocation of the sac parking will help broaden the public realm of South Campus, make its individual spaces more functional and welcoming, and promote year-round use of campus resources.

But other measures are necessary to develop the distinctive physical qualities of South Campus into a consistent, unified, unique sense of place. The historic core of South Campus retains a dignified charm, but the rest of the campus is buried beneath the accumulated effects of rapid expansion, long neglect, and planning centered on the automobile. By restoring the campus to the vision that E B. Green had for it 80 years ago, updated through the lens of social, economic, and environmental sustainability, the plan will fulfill the potential of South Campus to become one of the nation’s great classic university campuses.

ENHANCE CAMPUS CHARACTER.

The historic character of South Campus is well preserved and well loved, and the adaptive re-use of its older buildings forms a solid foundation for the sustainable development of the campus. But the character of South Campus is embedded in more than its remaining buildings. Landscapes, pathways, views, and even the history of long-demolished structures add depth to the experience of the campus as a unique and special place. All of these assets need an extra level of care to strengthen the essential nature of South Campus and prepare it for the coming changes.

Preserve historic assets. The historic core of South Campus comprises the E B. Green era of university construction and the pre-existing Erie County Almshouse buildings. The plan proposes the nomination of these buildings to the National Register of Historic Places on an individual basis, and the creation of a university-designated historic district to protect them. The district is intended to help coordinate UB’s future treatment of individual building lists and the landscapes between them, and to aid in UB’s efforts to tell the story of South Campus by highlighting its historic core.

Creation of a university-designated historic district, rather than a local, state, or federal one, will provide UB with the flexibility to modify the district’s boundaries and further develop the university’s preservation guidelines as migration and other aspects of plan implementation transform the campus. The plan proposes the following general guidelines to lay the groundwork for the reorganization and preservation of the university historic district:

- Restoration of materials: Renuations should incorporate historic fabric and restore authentic materials. Interventions to provide universal accessibility to previously inaccessible buildings should be sensitive to a building’s historic character. Non-historic elements should be removed from facades wherever possible.
- Landscape and pathways: Landscape design should celebrate ceremonial spaces, formal axes, and major entries. Walkways should support the quadrangles as shown in E B. Green’s master plan. Paving patterns and materials should be unique to the district.
- Wayfinding and education: Signage in the district should be different from other campus signage. Informational markers and artifacts and exhibits within public areas of buildings should tell the history of the campus. The nine-story campanile of the McKay Heating Plant and the clock tower of Hayes Hall are existing landmarks that make the campus memorable, familiar, and easier to navigate; views to these features should be preserved.
- Lighting: Buildings should be selectively and subtly lit at night to create landmarks on campus. A palette of exterior light fixtures within the district should be sensitive to the historic quality of the setting.
- Interpretive plan: The university should develop and implement gallery and exhibits, outdoor displays and specially marked pathways, and plaques explaining the origins of building names.
- Create memorable place names. New buildings, roadways, and open spaces create naming opportunities that can help tell the history of the campus, assist in wayfinding, and recognize major benefactors. The plan identifies several such opportunities on South Campus, but also assigns logical names to most places in order to facilitate their discussion in this document and generate early enthusiasm for new campus features. Ultimately, a UB committee on naming will establish these names.
- Highlight campus landmarks. New campus buildings and additions will preserve views across and within the campus to the iconic Hayes Hall clock tower and McKay Heating Plant chimney. The Abbott Hall steps will be reopened as a secondary entrance to the building, reactivating function and activity to the primary “front door” of South Campus. The new UB Law School building and the PEC, flanking the formal campus entry from Bailey Avenue, should be considered opportunities to create new campus landmarks. Permanent public art installations should be considered at the ends of both primary entrances as well as the secondary Winridge entrance and the campus gateways on Bailey Avenue at Main Street and at Wirridge Avenue.
MAKE GREAT PUBLIC SPACES.

The great public spaces on South Campus, such as Hayes Lawn and the Abbott Hall reading room, are far outnumbered by the mediocre spaces. Overwhelmed by parking lots, service areas, and massive, featureless façades, marred by "temperary" sheds, or only partially framed by buildings or landscape, much of the outdoor public realm feels disjointed and ill-defined. Submerged within mazes of offices, classrooms, and corridors, deprived of daylight and exterior connections, much of the indoor public realm feels like leftover space. The following plan strategies will create a more coherent, more vibrant public realm on South Campus.

► Create 24/7 centers of activity. The new Heart of the Campus at Abbott Hall, supplemented by the academic and campus life spaces in Harriman and Squire halls and the nearby PEC and Diefendorf Hall, will create a hive of activity surrounding Harriman Quad and spilling over into the rest of the Academic Precinct. The University Housing Precinct will have its own dual centers of activity, focused on the common spaces of Goodyear Hall and the university market and café in one of the new graduate student housing complexes. And the expanded Clark Hall, the focus of recreation for UB and the surrounding neighborhoods, will create a center of activity at the southern end of campus.

► Define clear building sites. After so many years of development, South Campus has no real "greenfield" areas left to protect. But the most important spaces on South Campus – the Main Street frontage, Clark Lawn, and the new grand entry from Bailey Avenue – will become prime locations to maintain views and draw the community into the campus. New construction will reinforce existing symmetries and axes established by the E.B. Green plan, lengthen and straighten pedestrian pathways along those axes, and define the edges of open spaces.

► Reinforce the existing hierarchy of open spaces. The E.B. Green plan proposed a simple, classically inspired pattern of quadrangles and lawns, encircled by a continuous and consistent loop road streetscape, and surrounded by a park-like setting of lawns and trees. The plan builds on the foundations of Green’s work to create an easily comprehensible network of well-defined outdoor spaces, with a wider range of scales and functions suited to contemporary university life.

► New COURTYARDS are proposed to balance the grandeur of Green’s plan with the intimacy of smaller spaces. Each of the new graduate housing buildings along Goodyear Road will arrange private townhouse-style entries around a central courtyard, providing protected social space for young families. The new addition for the School of Architecture and Planning will frame twin courtyards with Hayes, Wende, and Crosby halls, framing both interior and exterior paths between the Hayes and Clark lawns. And the plan illustrates a new UB Law School building with a central courtyard for school functions.

► QUADRANGLES. The plan takes the vocabulary of the quadrangle, already established by historic Harriman Quad, and extends it throughout the core of the Academic Precinct to restore the symmetry of the E.B. Green plan and provide shared spaces for the surrounding professional schools. Harriman Quad, a model for the campus, is already undergoing major landscape improvements to make it more beautiful, more functional, and more sustainable (see Revitalize Campus Landscapes below). The edges of each new quadrangle will be defined by existing or new buildings or rows of trees. In addition to the four quads forming a checkerboard pattern centered on Abbott Hall, two new quads will provide ceremonial entrances to the Academic Precinct from the west, framed by Foster and Crosby halls, and the south, framed by Parker and Kapoor halls. And a new quad framed by Goodyear Hall and one of the new residential buildings will replace the existing paved drop-off area with a landscaped space for casual recreation and paths connecting Goodyear Road to the new Main Street Lawn.

► PLAZAS. The ends of the major campus entries created by the plan – Abbott Road and Main Circle – will be marked by new plazas. As described above under the heading Make Pedestrians and Bicyclists More Visible to Drivers, both the Transit Plaza, between the transit pavilion and Main Entry Quad, and Abbott Plaza, providing drop-off access to Abbott, Diefendorf, and Harriman halls, will feature special paving and other traffic-calming devices to allow these spaces to safely serve pedestrians, bikes, and vehicles. By contrast, a new terrace on the south side of Abbott Hall, and plazas at the main entrances to Allen Hall and the new laboratory school, will be restricted to pedestrian use. The Abbott Hall terrace will provide seating for an adjoining café, bringing the Heart of the Campus outdoors to enliven Diefendorf Quad. The newly landscaped Allen Plaza will provide a more welcoming setting for programs such as the University Community Farmers’ Market.
• **LAWNS AND PARK-LIKE SETTINGS.** The formal Clark Lawn is both the heart of the E.B. Green plan and an essential UB and community resource for recreational sports. The ball fields will remain, while the demolition of the Hayes and Acheson annexes will restore this central space to its original grandeur, and new building sites will be restricted to maintain its classical symmetry.

Almost the entire border of South Campus will be transformed into a park-like setting with a variety of formal and naturalized landscapes. Enhanced by new windbreaks and stormwater retention ponds, Hayes Lawn will continue to host community events like UB on the Green. The new Main Street Lawn, replacing a stretch of parking lots between University Plaza and the University Housing Precinct, will feature curving pathways, clumps of trees, garden-like meadows, a retention pond big enough for ice skating, and an amphitheater featuring a newly unearthed section of the Onondaga Escarpment as its backdrop.

• **STREETSCAPES.** The clarity of the plan’s reorganized roadway system will allow for the creation of distinct campus streetscapes. Around the Academic Precinct, the loop road will have a stately, open feel, with deep yards between the roadway and the primary facades of the buildings facing it, and parking along only one side of the street. Abbott Road will be lined with a double row of trees on each side and no parking, creating a processional experience leading from the Bailey Avenue main entrance. And Doodyear Road will feel more like an urban residential street, with parking and new housing on both sides.
Enhance the pedestrian experience. In addition to the strategies described above under the heading Create Walkable, Bike-Friendly Campuses, the plan recommends landscape and architectural changes to add life to South Campus outdoor spaces. Much more detail on these strategies is provided in the plan’s design guidelines (see appendix).

Design for microclimate improvement. Opportunities to create windbreaks on South Campus are limited by the size of the campus, the formal arrangement of its buildings, and security concerns dictating that trees and shrubs be pruned to maintain views between two and six feet off the ground. While larger groupings of trees on the Hayes and Main Street lawns, small clumps of trees at the western corners of quadrangles and courtyards, and thicker rows of trees along pathways will help attenuate winter winds, the plan relies on other strategies to moderate South Campus microclimates. Paved gathering spaces, such as the new Abbott Terrace, will be located where exposure to sunlight is greatest. The scale of Clark Lawn, which can feel intimidating to pedestrians during the winter, will feel more cozy with new additions to Clark and Hayes halls, new tree-lined pathways, and, depending on the demand for on-campus business incubator space, two new buildings opposite Park and Kapoor halls.

Connect indoor and outdoor spaces. To help balance the opacity of the historic campus core’s stone facades, new construction in the Academic Precinct will feature extensive areas of glass, particularly facing pedestrian pathways. Wherever possible, 24/7 centers of activity will be enclosed with glass to lend activity and light to adjacent outdoor spaces. For example, the stone infilling the arches at the base of Abbott Hall facing south will be replaced with glass to connect café and other activities with the outdoors.

Emphasize building entries. Every new building and addition on South Campus will feature prominent, transparent main entries to help orient visitors and provide a sense of arrival. Some existing buildings can also be improved. For example, the north-facing entry to Squire Hall will be reopened to provide access and a suitable terminus for the realigned Goodyear Road. And the 1985 Health Sciences Library addition to Abbott Hall, which presents a blank façade to Bailey Avenue, will be renovated with more transparency to welcome visitors from this important entry point and create a more animated backdrop to Abbott Plaza.

Extend and improve sheltered connections. The generous spacing between buildings in the Academic Precinct precludes the creation of a network of sheltered bridges like that on North Campus. Such a network would also compromise the integrity of the precinct’s historic character. However, there are some opportunities for new sheltered connections at the second story between buildings occupied by a single school, particularly between the new addition to Hayes Hall and the adjacent Wende and Crosby halls, all slated to become part of a growing School of Architecture and Planning.

REVITALIZE CAMPUS LANDSCAPES.

Unlike much of North Campus, where poor soil conditions have stunted plant growth and extensive paved plazas overwhelm small patches of grass, South Campus boasts mature trees and a network of lawns that is consistent, though threadbare in places. However, this landscape lacks variety and year-round beauty, and provides little in the way of ecological services to UB or the region. The plan’s landscape strategies for South Campus are intended to form a significant new public green space in the stylized pastoral tradition of Frederick Law Olmsted, who designed Buffalo’s world-renowned system of parks and parkways.

Program the Landscape. The proposed landscape plan will support existing functions, such as UB on the Green, and augment them with new cultural and recreational destinations such as the amphitheater and ice-skating ponds. The new Main Street Lawn will accommodate a combination of active and passive uses, with lawns for large gatherings and informal recreation as well as a network of scenic paths and densely planted areas for strolling and enjoying nature. A new loop trail (see Enrich Campus Life above) will be long enough for skiing and snowshoeing. The southeast recreation area will remain an active landscape, but will have a reworked, more park-like character, with a winding jogging trail, a ball field, and an all-weather multi-purpose field, all open to use by UB, the community, and students at the proposed laboratory school.

Simplify landscape maintenance. Like North Campus, South Campus will have an inner core of higher-maintenance landscapes such as manicured lawns, rain gardens, and alternative ground cover, while the edges of the campus host lower-maintenance landscapes. On South Campus, however, the contrast between these two maintenance levels will be smaller, as the lawns, meadows, detention basins, and pond-shore plantings occupying the campus edges will still require continuous maintenance to maintain a park-like quality with the tailored appearance and sightlines dictated by an urban neighborhood environment.

Create self-sustaining campus ecosystems. South Campus cannot be ‘naturalized’; it has been altered too much by more than a century of intensive land use. Even after the plan’s changes are implemented too much of the campus will be covered by buildings, roadways, and parking facilities to provide the kind of room that self-sustaining ecosystems require. All plantings on South Campus must also meet with University Police security guidelines by maintaining an unobstructed view between two and six feet off the ground. Furthermore, the desired neighborhood-park-like environment, intensive recreational use, and the historical predominance of lawns in the campus core will necessitate a narrower selection of plants.
The Harriman Quad landscape is being renovated as part of the 2008-2013 capital plan. Pathways and a central plaza will be located in areas of maximum sunlight. Curbed main pathways will channel salt-laden snowmelt away from plantings; secondary pathways will be paved with porous materials; tertiary pathways will not be paved in winter. Plantings will be dictated by the availability of sunlight. Alternative ground covers, concentrated in shady spots, will provide habitat and reduce the need for lawn maintenance. Because standing water cannot be tolerated in a quadrangle for reasons of safety and aesthetics, specially designed rain gardens with two-foot-deep absorbent soil beds will capture stormwater from adjacent buildings for infiltration into the ground. 

Harriman Quad will be a test case and model for other parts of South Campus. Strategically applied throughout the campus core, these interventions can be used to restore the historic grandeur of South Campus courtyards, quads, and plazas while making the landscape a more integral part of UB’s environmental stewardship strategies.

HARRIMAN QUAD PILOT PROJECT

This chapter describes strategies for restoring South Campus as a vibrant, evolving symbol of UB’s historic past as well as its ambitious goals for the future. Much remains to be done before some of these strategies can be fully implemented. The potential for resource sharing among the professional schools will need to be explored before academic and administrative space needs can be determined. Parking demand forecasts will be updated as TDM strategies and transit improvements are weighed, revised, negotiated with UB unions, and implemented in collaboration with municipal and state agencies and UB’s community partners.

Historic resource surveys may need to be updated or expanded, and detailed guidelines developed, to support the creation of a university historic district and the nomination of properties to the National Register of Historic Places. A new campus-wide signage and wayfinding plan, coordinated with the historic district, will be developed and changes made as schools relocate, roadways shift, and buildings fall or rise. While the broad strokes of phasing the transformation of the campus are outlined in Chapter 7, the complex logistics of the extensive school migration, building demolition, and new construction planned for South Campus will require in-depth study. Decommissioning studies of at least two facilities that have housed potentially hazardous materials must be completed before their demolition can be planned. An extensive mitigation program, also outlined in Chapter 7, will be developed to minimize potential negative impacts of campus construction work on the surrounding neighborhoods.

The plan’s vision for South Campus is ambitious. Regardless of the pace of school migration or growth, the plan’s recommendations for discovering, connecting, and place-making will leave few campus places untouched, indoors or out. The plan is flexible; any sensible combination of strategies for the transformation of South Campus over the coming years will yield substantial benefits to both UB and the neighborhoods surrounding the campus. The work will never be done; new challenges will arise, new opportunities will be seized, and the plan will be updated. But at some point—perhaps just a few years, or a few decades, in the future—South Campus will claim its place as a hub for regional connections, a center of thriving neighborhoods, and the heart of a great university.
The University at Buffalo’s plan for a Downtown Campus involves nothing less than the creation of a world-class center of clinical practice, medical education, health sciences research, and the translation of new knowledge into practical applications – one that will rival other urban medical centers across the nation. The health sciences will continue to be a key economic sector in the 21st century and Buffalo can and should be prepared to compete in that important arena.

Integrating the resources of UB with those of Kaleida Health, Roswell Park Cancer Institute, and other members of the Buffalo Niagara Medical Campus (BNMC) can make that happen. UB will soon have all five of its health sciences schools located together on South Campus. But there is no teaching hospital in close proximity. Kaleida’s Buffalo General Hospital on the medical campus serves as a remote UB teaching hospital. Roswell Park also hosts UB graduate research programs on the campus. While these collaborations have been successful, the distances between our facilities and theirs have kept us from realizing the full potential of our cross-disciplinary efforts.

The BNMC is already a focus for public and private investment in both biomedical research and neighborhood revitalization. Its nine health care-related institutional members, including UB, occupy a 100-acre district at the northern edge of downtown Buffalo. Dedicated to promoting a knowledge-based transformation of Western New York through biomedical research, education, clinical practice, and entrepreneurship of its member institutions, the BNMC seeks to be a magnet of opportunities – attracting and retaining the best and the brightest. Bringing the university’s health sciences schools to the medical campus will create a fully integrated, highly competitive UB Academic Health Center with the potential to:

- Enhance ongoing medical discovery and high-quality clinical care through increased interdisciplinary interaction;
- Generate new educational programs, create new health care delivery models, and accelerate growth of public and private investment;
- Give the member institutions of the BNMC a competitive edge in the recruitment and retention of talent and attract more patients;
- Boost the role of the medical campus as an economic engine for local neighborhoods, the city of Buffalo, and the entire Western New York region; and
- Increase efficiency and reduce costs through cooperative planning, sharing, and management of resources.

Making the most of this opportunity will require the migration of all five of UB’s health sciences schools from South Campus to a new Downtown Campus co-located with our BNMC partners. The School of Medicine and Biomedical Sciences and the School of Nursing will lead the transition. The School of Public Health and Health Professions will be close behind. Eventually, the School of Dental Medicine and – a generation after its move in 2012 from North to South Campus – the School of Pharmacy and Pharmaceutical Sciences will follow. An array of campus life and administration and support functions will grow on and around the campus in step with this migration.

When UB’s Downtown Campus is complete, the university, the BNMC, the city of Buffalo, and all of Western New York will be at the forefront of the health care economy. And UB will have a third complete campus experience to attract the best students, faculty, and staff.
The University of Buffalo’s very first new building was constructed in 1849 on the corner of Main and Virginia streets—in the same urban context as is today’s Buffalo Niagara Medical Campus. The School of Medicine building, a two-story structure of rough-hewn limestone erected at a cost of $15,000, was the first building in Buffalo built solely for collegiate education. It was located adjacent to the Sisters of Charity Hospital, an independent institution that served as the school’s first site of clinical instruction.

Today, the University at Buffalo’s move to downtown Buffalo is more than a return to roots; it is the central element in UB’s strategy to achieve academic excellence in the health sciences. At a time when clinical practice, research, and medical education have become part of a seamless continuum of inquiry and action, and when the governing paradigm of medical education is to teach all health care practitioners together, UB’s health sciences schools must be where their primary partners in health care are also located. Just as it made sense for the University at Buffalo’s first building in Buffalo to be located adjacent to what is now the Buffalo Niagara Medical Campus, the COE also connects to and serves the surrounding neighborhoods. These scenarios will build on the existing fabric of rough-hewn limestone erected at a cost of $15,000, was the university’s first new building.

Unlike UB’s North and South campuses, Downtown Campus will not be established on a cleared site entirely owned by UB or physically set apart from its surroundings. Instead, it will be carefully integrated into a complex urban landscape with an array of existing facilities, streets, and neighborhoods, where a multiplicity of institutional partners and neighbors all seek to make their own futures. Such circumstances can be seen as constraints on institutional action, but they can also serve to focus decision-making and provide a catalyst for collaborative problem-solving.

Therefore, this chapter is structured differently from those describing the growth, migration, and transformation of North and South campuses. Rather than focusing on a single campus property already owned by UB, the plan’s strategy for Downtown Campus considers a multiplicity of scenarios for growth and migration, all of which share a broader framework for transformation that encompasses the medical campus and its surrounding neighborhoods. These scenarios will build on a common urban context that includes UB’s partners in the BNMC, the surrounding neighborhoods, and the city of Buffalo as a whole.

**DOWNTOWN CAMPUS TODAY**

UB already has a significant presence in the downtown Buffalo area—an array of academic and community engagement programs in several buildings with more than half a million gross square feet (GSF). Four of these programs are located in and around the medical campus:

**UB’s New York State Center of Excellence in Bioinformatics and Life Sciences (COE)** houses researchers from several UB health sciences departments, UB’s Center for Computational Research and Center for Advanced Biomedical and Bioengineering Technology, and the offices of several private biotech commercialization firms and organizations. Located in the heart of the medical campus, the COE also connects to and serves other institutions in the Buffalo Life Sciences Complex including the Hauptman-Woodward Medical Research Institute’s Structural Biology Research Center and the Roswell Park Center for Genomics and Pharmacology.
The Ira G. Ross Eye Institute is a collaboration among the Department of Ophthalmology at the medical school, the Elizabeth Pierce Olmsted, M.D. Center for the Visually Impaired, and University Ophthalmology Services. The institute, located just north of the medical campus on Main Street, houses research, diagnosis, treatment, and educational programs dedicated to addressing the diseases that cause vision loss.

Elements of UB’s Division of Development and Alumni Relations have been relocated to the Jacobs Executive Development Center in the historic Buff Mansions. The house, built in 1899, was designed by the renowned architectural firm of McKim, Mead & White. It is located a few blocks west of the medical campus on North Street.

Together, these programs and projects are tangible evidence of UB’s commitments to health care and economic development in downtown Buffalo. However, this disparate set of facilities does not yet add up to a coherent Downtown Campus for UB. For that, we need to more fully integrate UB’s health sciences schools with our partner BNMC institutions, expand UB’s civic engagement programs, and develop a readily identifiable, physically united presence for UB in downtown Buffalo.

THE BUFFALO NIAGARA MEDICAL CAMPUS

The Buffalo Niagara Medical Campus has three distinct aspects: the BNMC, a consortium of nine health-care-related institutions; BNMC Inc., a not-for-profit corporation formed in 2001 to coordinate planning and development among the members; and the medical campus, a geographical place bounded by Michigan Avenue and North, Goodell, and Main streets (plus UB’s properties south of Goodell and Kaleida’s property east of Allen). In addition to Kaleida, Roswell Park, Hauptman-Woodward, and UB, BNMC members include the Buffalo Hearing & Speech Center, Buffalo Medical Group PC, the Center for Hospice and Palliative Care, the Olmsted Center for the Visually Impaired, and Upstate New York Transplant Services, all of which operate facilities within or adjacent to this area (see Growth, Migration, and Transformation below).

In 2003, BNMC Inc. commissioned a master plan to illustrate the potential for the growth of research and clinical facilities on the campus. In addition to placing the growth plans of Kaleida and Roswell Park alongside possible development strategies for UB’s Downtown Campus, the BNMC master plan also provided concepts for a cohesive network of green spaces and pedestrian paths to connect the nine member institutions to each other and to the surrounding communities.

BNMC Inc. is updating its master plan to incorporate changes in and around the campus. This includes a Healthy Communities Initiative focused on improving the bicycle and pedestrian environment; input from the ongoing Four Neighborhoods, One Community planning effort (see below); and several new projects under development on or adjacent to the medical campus, in addition to UB’s ongoing efforts.

The process of creating UB’s Comprehensive Physical Plan has included continuous consultation with BNMC leadership and staff as well as representatives of individual member institutions. The ongoing development of UB’s Downtown Campus, and the framework for transformation outlined in this chapter of the plan, will be reflected in an updated BNMC master plan.

FOUR NEIGHBORHOODS, ONE COMMUNITY

The Four Neighborhoods, One Community neighborhood planning effort, scheduled to be completed at around the same time as UB’s Comprehensive Physical Plan, focuses on two neighborhoods – Allentown, to the west of the medical campus, and the Fruit Belt, to the east – and their relationships to the campus and the rest of downtown Buffalo to the south. Initiated and supported by BNMC Inc. in cooperation and partnership with the City of Buffalo, Four Neighborhoods, One Community developed individual neighborhood strategy plans for Allentown and the Fruit Belt with extensive input from community residents, businesses, and other stakeholders.

Among other things, these plans clarify how the growth of BNMC member institutions, including UB’s development of our Downtown Campus, can be planned to provide the maximum positive impact on Allentown and the Fruit Belt. This includes strategies for property acquisition, land use, urban design, streetscape improvements, retail and residential stabilization, collaborative planning, and workforce development.

Allentown, a demographically diverse community with a well-preserved historic character and a thriving retail and dining scene, has the potential to be a destination neighborhood for the city and region. Of particular relevance to UB’s plans for Downtown Campus are the vision and recommendations to:

- Prioritize mixed-use development of Main Street, the neighborhood’s border with the medical campus, including adaptive re-use of existing brick buildings and new construction of mid-rise retail, residential, and medical office buildings with active ground floor uses, a continuous streetwall, and a consistent architectural massing in keeping with existing larger buildings.
- Support neighborhood retail development with streetscape improvements on Main Street, including wider sidewalks, new trees, and parking on both sides of the street. Two lanes of parking are preferred to a new center median, which would block pedestrian views, promote faster traffic, and thereby inhibit retail activity.
- Support neighborhood retail development with housing on the upper stories of Main Street buildings targeted at students and employees of UB and other BNMC member institutions, built with sufficient density to provide a critical mass of residents and “eyes on the street.”
- Create a neighborhood gateway between the medical campus and Allentown at the intersection of Main and Allen streets, including a focused effort to find stable tenants for the storefronts at this corner; redevelopment of the Allen/Medical Campus Metro Rail station, and extension of Allen Street east from Main Street to Ellicott Street.
- Develop shared parking assets within the campus or on Delaware Avenue to be used primarily by patients, students, and employees of the BNMC member institutions on weekdays, and by visitors to local dining and shopping venues at night and on weekends.
The Fruit Belt has strong community organizations and a long history as a cohesive residential neighborhood of modest single-family houses, but Buffalo's citywide population decline has hit hard here, creating a need for new residential and retail development to reconstitute a unified sense of place. Of particular relevance to UB's plans for Downtown Campus are the vision and recommendations to:

- Prioritize mixed-use development of High Street, the neighborhood "Main Street," with the adaptive reuse of existing brick buildings, the construction of new buildings with ground floor retail and one to two floors of housing above, and the creation of a new neighborhood center with retail and community facilities at the corner of Mulberry Street.
- Develop a continuous streetscape of civic, retail, residential, and medical office buildings along Michigan Avenue, the neighborhood's border with the medical campus, at a scale and with a level of detail and sensitivity to design that will provide an appropriate transition between the large institutional structures of the medical campus and the small-scale residences of the Fruit Belt.
- Create a neighborhood gateway between the medical campus and the Fruit Belt at the intersection of Michigan Avenue and High Street, including new buildings of four to six stories with active ground floor uses.
- Coordinate with BNMC member institutions, Fruit Belt community organizations, and local educational institutions to address education, workforce development, internship and placement opportunities.
- Improve pedestrian and transit connections between the Fruit Belt, the medical campus, and the Allen/Medical Campus Metro Rail station in order to expand neighborhood access to local and regional employment opportunities.
- Establish an employer-assisted homeownership program targeted to the Fruit Belt neighborhood.
- Support the creation of a Fruit Belt community development corporation to bring a specific focus on affordable housing and business and workforce development to the network of existing service organizations in the neighborhood, and to provide ongoing planning coordination.

THE QUEEN CITY HUB

The Allentown and Fruit Belt neighborhood strategy plans are intended to serve in part as initial drafts of the detailed local area plans called for by The Queen City in the late 21st Century—the Buffalo Comprehensive Plan, which articulated an overall vision for the city in 2006. The Queen City Hub: A Regional Action Plan for Downtown Buffalo, a component of The Queen City in the 21st Century that was completed in 2003, serves in part as a bridge between the comprehensive plan and the local area plans.

Among other things, The Queen City Hub focused on four strategic investment areas in downtown Buffalo, and argued for the enlargement of what is considered "downtown" to include a fifth area, the medical campus. In addition to transit enhancements, focused redevelopment efforts, and streetscape improvements along much of Main Street intended to tie the medical campus into the rest of downtown Buffalo, The Queen City Hub also recommended the following principles for development of the campus:

- Establish a common campus address for BNMC member institutions along Ellicott Street, signified by a continuous landscaped setback along the east side of the street.
- Improve physical integration between the campus and neighborhoods, with new commercial and residential development along Main Street and Michigan Avenue, and the extension of Allen Street from Main Street to Ellicott Street.
- Foster economic and community development through job creation and workforce training for residents of neighboring Allentown, the Fruit Belt, and the rest of downtown Buffalo.
- Enhance the open space network, through the creation of new city streets and green spaces, to facilitate public interaction, pedestrian circulation, and development of an attractive campus.

These recommendations placed particular emphasis on improving the urban form and function of the three north-south streets conveying traffic to and through the medical campus. On Main Street, a regional artery, The Queen City Hub recommended streetscape improvements and the rehabilitation and adaptive re-use of historic buildings to encourage an active street life supportive of retail activity on Ellicott Street, in addition to the linear park, the plan recommended the restoration of two-way vehicular traffic, new signs, and new buildings with layered setbacks to create a "peaceful campus street." On Michigan Avenue, a neighborhood street, The Queen City Hub recommended streetscape improvements, cooperation with local community organizations, and the consolidation of underutilized land for the development of new retail and commercial buildings that could serve both the medical campus and the Fruit Belt.

The plan also recommended the strategic dispersal of new parking garages across the campus in order to avoid disrupting the continuity of the campus and creating barriers to adjacent neighborhoods. Nearly all of the recommendations in The Queen City Hub for the medical campus have been incorporated into or improved upon in the subsequent BNMC master plan and Four Neighborhoods, One Community plans. Some recommendations, such as the creation of a linear park along Ellicott Street, are already in planning and design. And others, such as the renovation of the 800 block of Main Street to support new retail and residential occupancy, have already been completed.

In addition to the medical campus and its neighbors to the east and west, The Queen City Hub also provided recommendations for The Theater District to the immediate south of the campus. Recent development along Main Street has added new offices, residences, restaurants, and nightlife to one of the largest concentrations of performing arts facilities in the country. To build on this success, The Queen City Hub called for expansion of this development into existing parking lots on Washington and Pearl streets, in addition to the restoration of vehicular traffic to a part of Main Street previously reserved for the NFTA Metro Rail, a change that is currently in planning.
Chap Ter 6 — down Town Campus

Density of medical campus development makes a sharp contrast with smaller scale streetscapes on Main Street (right) on the campus edge.

Assets and Challenges

Building u B — The Comprehensive p hysi Cal p lan

Many highly inconsistent streetwalls with blank façades. The synergy that might come with greater density. Instead of prints, long shadows, and no street presence. Buildings are large and bulky compared to typical residential and commercial uses. For the same reasons, institutions with multiple buildings tend to focus on the need to connect these facilities to each other, which can lead them to turn their backs to the surrounding areas, placing necessary support functions such as parking, utilities, and other buildings with long, blank walls along the adjoining streets and sidewalks. The result can be a fortress-like character that is intimidating to nearby residents and discourages the foot traffic necessary for a healthy mix of uses, particularly retail.

Another challenge is the transition between institutional- and neighborhood-scale buildings and uses. In general, clinical, research, and educational health sciences facilities require large floor areas to achieve efficiencies in interdisciplinary work and the delivery of care and services. This necessarily leads to buildings that are large and bulky compared to typical residential and commercial uses. For the same reasons, institutions with multiple buildings tend to focus on the need to connect these facilities to each other, which can lead them to turn their backs to the surrounding areas, placing necessary support functions such as parking, utilities, and other buildings with long, blank walls along the adjoining streets and sidewalks. The result can be a fortress-like character that is intimidating to nearby residents and discourages the foot traffic necessary for a healthy mix of uses, particularly retail.

Both of these challenges are made more difficult by a lack of well-defined open space in the neighborhood. An exception is the landscaped park spanning Carlton Street between North Oak and Elm streets on the Roswell Park campus. Although it is gated, and not open to public use, it provides a welcome respite from the institutional setting. The proposed linear park along Ellicott Street and the extension of Allen Street will help ameliorate this condition, but the neighborhood needs still more public open space to humanize its public realm and, especially, to encourage east-west crossings of the medical campus between the Fruit Belt and Allentown, tying all three neighborhoods to each other and to public transit services along Main Street.

Growth, Migration, and Transformation

CAMPUS GROWTH, CAMPUS PURPOSE

The migration of UB’s health sciences schools, accompanied by an array of UB’s civic engagement programs, will create a strong, dual programmatic identity for Downtown Campus: the home of UB’s health sciences education, clinical practice, and biotech development; and a primary gateway between Buffalo and its university. This dual purpose will place the campus at the center of UB’s efforts to transform neighborhood, citywide, and regional economies.

Downtown Campus must accommodate more than our civic engagement programs and the health sciences schools and related space for translational research and business development. It cannot be a true campus if it does not support life outside the office, lab, classroom, or clinic. Spaces for living, eating, studying, socializing, recreation, and student services and activities are all necessary to create a comprehensive university experience, particularly for undergraduates. They are also necessary to make the campus whole, and to make it competitive with other urban schools for the best students, faculty, and staff.

Still, the campus life element of Downtown Campus will program will occupy less space, percentage-wise, than on UB’s other campuses. There is already a great deal of housing, dining, retail, arts and culture, and other services in adjacent neighborhoods—and potential for the public sector to provide even more. This potential will have to be weighed carefully against the need to provide supportive residential environments for undergraduates, opportunities to generate revenue through academic, administrative, and support programs on Downtown Campus will include a Heart of the Campus, including a central library and associated teaching and study spaces, and a robust, technology-rich landscape of informal learning spaces, fully integrated with campus life facilities. The academic program category also includes spaces for UBMD, the practice plan located to activate the public realm; and a state-of-the-art recreation and wellness center. It is too soon to determine the full scope of each of these programs, but we do know that our partners in the BNMC are interested in working with us to develop some of them for shared use (see Enrich Campus Use below).

In addition to formal instructional space, wet and dry labs, faculty offices, and clinical and research spaces, the academic, administration and support programs on Downtown Campus will include a Heart of the Campus, including a central library and associated teaching and study spaces, and a robust, technology-rich landscape of informal learning spaces, fully integrated with campus life facilities. The academic program category also includes spaces for UBMD, the practice plan comprising over 450 physicians who are also professors at the medical school.

Approximately 16,000 students, faculty, and staff are planned to occupy the completed Downtown Campus. In total, approximately 4.2 million GSF will be required to accommodate the academic, administrative and support, and campus life program for this population, with 2.9 million GSF allocated to academic uses. This investment will more than double the volume of existing facilities on the medical campus.

ASSETS AND CHALLENGES

Beyond the educational, clinical, and translational strengths of the BNMC’s member institutions, the greatest assets of the area where UB’s Downtown Campus will grow are its location, at the north end of downtown Buffalo, surrounded by diverse neighborhoods, well served by public transit, and its density, which offers the opportunity to support significant new development.

As North Campus is UB’s green suburban campus, and South Campus is UB’s classic collegiate campus, Downtown Campus will be UB’s urban campus, with both academic and campus life located in one of Buffalo’s most dynamic places. It will provide a compelling option for those students, faculty, and staff who want immediate access to the best of city living—whether or not they also work or study at UB’s Academic Health Center (AHC).

Making the most of this opportunity will require a coordinated effort by UB and its BNMC partners to overcome several challenges. The greatest challenge, the limited space available to accommodate UB’s health sciences schools alongside the other members of the BNMC, is addressed in the next section of this chapter. But there are also a number of challenges related primarily to the physical composition of the neighborhood.

The existing buildings on the medical campus are heterogeneous in the extreme: sleek, modern buildings with street appeal abut tall, bulky masonry buildings with large footprints, long shadows, and no street presence. Buildings are irregularly set back from the streets, while large expanses of surface parking and vacant lots separate buildings and weaken the synergy that might come with greater density. Instead of consistent streetwalls with active ground-floor uses, there are many highly inconsistent streetwalls with blank façades. The lack of a consistent urban fabric is particularly apparent along Ellicott Street, but affects Main Street and Michigan Avenue as well, and makes these streets feel less welcoming and even less safe for pedestrians.

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PROPERTY ACQUISITION AND DEVELOPMENT

While the university already owns all of the land we need to continue developing our North and South campuses, we own relatively little of what will ultimately be needed to accommodate the new UB AHC and other elements of Downtown Campus. Acquiring the right sites, making the right physical connections between our projects, and developing the optimum densities will be key requirements. The key sites will require creative strategies, collaborative relationships, and leadership vision to build what we need for our own program, while maximizing the potential for integrating clinical care, research, and educational development. The danger is that projects built in the wrong location or on the wrong sites will foreclose possibilities to develop open spaces, amenities, or at an inappropriate density, or waste opportunities to develop open space, amenities, or at an inappropriate density.

The key to the success of the entire enterprise is to get the partnership and development of the medical campus. The question isn’t whether there is enough room for everything, rather, it is to make sure that each has the opportunity to build what it needs for its own program, while maximizing the potential for integrating clinical care, research, and medical education. The danger is that projects built in the wrong location or on the inappropriate density will foreclose possibilities to create functional links, or waste opportunities to develop open space and other shared resources, or isolate academic members from their partners. Such collaboration, fortunately, is not unprecedented. The construction of UB’s new Clinical and Translational Research Center (CTRC) and UB Biosciences Incubator was made possible by working with Kaleida, which is building its Global Vascular Institute (GVI) on the floors below. This suggests the possibility of other joint ventures—multi-institutional projects, shared facilities, air rights, and land swaps, just to name a few examples—that will make the most of our potential for working together on the medical campus.

The land ownership pattern on the medical campus is complex. Most of the campus north of High Street is owned by Kaleida. Following the completion of several new facilities along High Street and the downtown area (see sidebar), Kaleida’s long-term plan is for the intensive redevelopement of the property it already owns and occupies, allowing it to create up to 1 million GSF of space we need to build for the AHC. There are many other opportunities to accommodate our growth and that of our BNMC partners. This includes property along High Street—some of it controlled by Kaleida, some by others; sites along Goodell Street, some owned by UB and Kaleida, and a major parcel owned by a private developer. There will be other opportunities for UB and its current and future partners to expand beyond these nine sites under study. As an example, the lot to the south of Site 7 on Goodell Street is owned by NYSODT, and is used today for salt and equipment storage. This site could provide valuable space adjacent to the medical campus for needs ranging from parking in the short term to future research park expansion or additional program requirements related to the UB Gateway and EOC facilities.

UB owns four parcels on the medical campus: the RIA at Main and Goodrich streets, UB’s New York State Center for Excellence in Bioinformatics and Life Sciences (COE) at Ellicott and Virginia streets, and two properties south of Goodell Street. Two UB projects at the latter sites, in addition to the GVI/CTRC/Biosciences Incubator on Kaleida property, are in development (see sidebar on next page). Even if they were not already developed or committed, these UB-owned sites would be far too small to accommodate the 4.2 million GSF of space we need to build for the AHC. Yet there are many other opportunities to accommodate our growth and that of our BNMC partners. This includes property along High Street—some of it controlled by Kaleida, some by others; sites along Goodell Street, some owned by UB and Kaleida, and a major parcel owned by a private developer. There will be other opportunities for UB and its current and future partners to expand beyond these nine sites under study. As an example, the lot to the south of Site 7 on Goodell Street is owned by NYSODT, and is used today for salt and equipment storage. This site could provide valuable space adjacent to the medical campus for needs ranging from parking in the short term to future research park expansion or additional program requirements related to the UB Gateway and EOC facilities.
In the near future, the growing Downtown Campus will coalesce around the completion of three projects currently in development.

**UB Clinical and Translational Research Center and UB Biosciences Incubator:** This pioneering joint development by UB and Kaleida Health, scheduled for completion in 2011, will house cutting-edge clinical, research, and commercialization spaces under one roof. The bottom floors of the building will be occupied by a new Global Vascular Institute and updated emergency department for Kaleida’s Buffalo General Hospital, allowing the closure of Millard Fillmore Gates Circle Hospital as mandated by the New York State Commission on Health Facilities in the 21st Century. The middle floors will house procedural rooms for Kaleida, seminar space, a health and wellness center, and the UB Biosciences Incubator, with space and services for start-up companies that result from UB medical research discoveries. The top floors will house the UB Clinical and Translational Research Center, with lab and support space for the clinical departments of UB’s health sciences schools. The building will also include a healing garden framed by shaded connections to Buffalo General Hospital.

**UB Downtown Gateway:** This facility will consist of two interconnected buildings on the southern edge of the UBMC: the historic daylight factory building designed for the M. Wila Company, renovated to house many of UB’s civic engagement programs; and a new Educational Opportunity Center (EOC) to the south, scheduled for completion in 2012. Together, these buildings, joined by a new atrium, will provide a “front door” to Downtown Campus from the rest of downtown Buffalo.

The M. Wila building will provide a unique hub for public service activity by UB students, faculty, and staff. In addition to the Regional Institute, programs being considered for occupancy are a wide range of services, including supporting excellence in K-12 education, improving neighborhood quality of life, providing expert advice for local businesses and entrepreneurs, and encouraging affordable housing development. They will be supported by state-of-the-art classrooms and meeting rooms.

The Educational Opportunity Center, relocated from leased space to a new building adjacent to the M. Wila building, will be a “campus within a campus” for adult learners. It will house community educational services, job training, and employment placement services in an open, welcoming academic environment, with visual connections between floors and a central “information commons” with Internet stations and other media.

**ASSESSING THE EXISTING BUILDING STOCK**

In order to minimize the total footprint required to grow new facilities for our Downtown Campus, the university will pursue infill development of vacant sites and strategies such as air rights purchases and the “stacking” of UB spaces atop partner facilities. However, the accommodation of large health sciences facilities and the creation of a cohesive campus environment—necessary to achieve the full potential of the AHC—will also require demolition and adaptive re-use of some existing properties.

Fine parcels in particular—not one of them owned by UB—will require special attention if they are redeveloped in conjunction with our plans for Downtown Campus. Each of these properties presents a strategic opportunity for all involved to “trade up” for current residents to trade up to better housing; for the surrounding neighborhoods to trade up to a bigger, stronger base for residential, retail, and commercial revitalization; and for all of Western New York to trade up from a great health services center to a world-class academic health center that will also generate jobs for local residents, foot traffic for local streets, and patrons for local businesses.

The university recognizes the significant coordination and cooperation that will be required at these sites for potential development by UB and its partners:

**Burnie C. McCarley Gardens (Site 4):** This affordable housing complex, constructed in 1978 by St. John Baptist Church and named after its first pastor, occupies 15 acres in the southeast corner of the medical campus. UB has been in negotiations with St. John Baptist Church to purchase the property, which is strategically located between the UB Downtown Gateway and the health sciences institutions of the UBMC. Any sale would be contingent on St. John’s completion of a relocation and transition plan that guarantees the residents of its 169 townhouse units access to housing of better quality than McCarley Gardens; and the satisfaction of the U.S. Department of Housing and Urban Development (HUD), which is party to some restrictions on the sale and use of the property. Any new use of the property should incorporate the McCarley name.

**Pilgrim Village (Site 1):** This 90-unit affordable housing complex, constructed in 1980 by a private developer, occupies more than 12 acres north of the medical campus. Kaleida Health has obtained an option to lease the property from a private development company. Any plans for its redevelopment would be subject to conditions similar to those described above for McCarley Gardens. Cornerstone Manor, at the corner of Michigan Avenue and North Street, would not be part of this redevelopment.

**Former Trico Plant No. 1, a.k.a. Century Center (Site B):** This complex was listed on the New York State Register of Historic Places and National Register of Historic Places in 2001 for its architectural significance as a daylight factory and its industrial significance as the home of the first manufacturer of windshield wiper blades for automobiles. Today the multiple parts of the complex are considered to constitute two main buildings: a larger six-story building on Goodell Street, owned by the Buffalo Urban Development Corporation, and a smaller four-story building to the north, owned by BNMC Inc. The four-story building has been renovated to accommodate the BNMC’s Innovation Center, which offers flexible Class A office space for life sciences and technology companies. However, the continued use of the Innovation Center and the potential for developing neighboring sites are jeopardized by the very poor condition of the vacant six-story building, which requires extensive renovations to its exterior envelope as well as hazardous material remediation. While adaptive re-use is the preferred option for this building, the need for safety requires BNMC Inc., the designated developer of the site, to explore alternatives, including emergency demolition.
Interdisciplinary collaboration, one of the primary objectives of the plan, is the cornerstone of UB’s Downtown Campus. The synergies between our health sciences schools and the clinical and research institutions of the BNMC will spur the creation of new knowledge, new businesses, and new jobs, and yield major improvements in the already high quality of health care in Western New York. This work will be organized around the academic health center model.

The mission of the UB Academic Health Center is to provide a superb research and educational environment to foster basic discovery in the biosciences, health science translational research, preventive and interventional clinical trials, superb clinical care, and training of the next generation of health care practitioners in each of these disciplines.

Discovering on Downtown Campus will revolve around the same guiding concepts as discovering on our North and South campuses. However, because our Downtown Campus facilities do not yet have specific sites, because the creation of an academic health center offers special opportunities, and because of our neighborhood context, these concepts will be enacted differently:

**Mixed uses and the learning landscape:** The need to construct new facilities for much of Downtown Campus offers the opportunity to integrate research, teaching, and student life spaces throughout the fabric of each new building. At the same time, the need to integrate Downtown Campus with a dense urban environment also creates a responsibility to integrate community-oriented uses into these buildings, with special attention to creating ground-floor retail, dining, and meeting space with a visual street presence.

**The 21st-century library:** Downtown Campus will have a 21st-century health sciences library to serve as the center of academic and campus life—a Heart of the Campus similar to those planned for North and South campuses. We will devise a strategy to enable our health sciences library on South Campus to serve two campuses throughout much of the transitional period while our health sciences schools migrate downtown. Collaboration with our BNMC partners on the creation of a new shared library facility could help minimize the duplication of essential functions during this period, while also helping to establish a center of academic and campus life activity that serves the entire medical campus.
FACILITATE INTERDISCIPLINARY COLLABORATION AND EXTEND THE REACH OF OUR RESEARCH AND KNOWLEDGE.

The major value of the academic health center model is the potential to integrate medical education, research, and clinical care across multiple health sciences disciplines and settings. It also allows for interdisciplinary planning that can be productive in the development of:

• new curricula;
• new health care delivery models for individual patients as well as communities;
• new models of business creation and other applications based on basic biomedical research;
• more efficient and effective management, information technology, and human resources systems;
• competitive recruitment and retention of physician-scientists.

The collaborative solicitation of federal and private research grants; and
• more efficient and effective use of facilities and space.

UB is already exploring the planning, financing, and operation of new research and educational facilities in partnership with other member institutions of the BNMC, including:

• classrooms;
• simulation labs;
• wet lab facilities;
• administrative offices;
• medical and outpatient care offices;
• core biomedical research facilities and supportive functions;
• medical research library and technology support center; and
• conference center with lecture halls and breakroom spaces.

Collaboration among BNMC member institutions has already yielded joint models for creating facilities that maximize both interdisciplinary collaboration and translational research. The vertical “stacking” of Kaleidoscope’s emergency department and GIF and UB’s CTREC and Biosciences Incubator, to be completed in 2011, will be enhanced by a large lightwell extending vertically through the building and visually connecting the different functions. The Buffalo Life Sciences Complex offers a different model: three interconnected buildings, each owned and operated by a different institution. A pedestrian bridge over Elliott Street between Hauptman-Woodward’s Structural Biology Research Center and UB’s CIDE, and improved security protocols between the COE and Roswell Park’s Center for Genetics and Pharmacology, will complete these connections.

It is likely that these “stacked” and “bridged” models will be replicated and augmented by new models as Downtown Campus grows. These new facilities should provide significant amounts of shared public space with access to daylight and visibility from the street. Such spaces will naturally become centers of collaborative and entrepreneurial activity if they are designed to attract students, faculty, and staff and encourage them to linger.

These efforts will be enhanced by UB participation in BNMC-sponsored programs. For example, the Life Sciences Commercialization Lecture Series, a business development program modeled on the UB School of Management’s Center for Entrepreneurial Leadership, is already hosted at UB-owned facilities on the medical campus. And the BNMC’s Innovation Center will provide room for the growth of businesses that originate in UB research.

SUPPORT WORLD-CLASS TEACHING AND STIMULATE LEARNING EVERYWHERE ON OUR CAMPUSSES.

The intensive interdisciplinary environment and focus on translational research at Downtown Campus will make it a magnet for the health sciences’ best teachers and practitioners. It will be critical for the classroom and labs on Downtown Campus to be technology-rich, with high environmental quality, and strong connections to the rest of the learning landscape. Faculty and teaching/media/tech support hubs (see Chapter 3) must be included to support teacher development and host faculty who have primary offices on North or South campus. While informal study spaces should also be a part of new UB buildings built on Downtown Campus, those and other specialized facilities—such as a winter garden, a transit pavilion, and a bookstore—may also be incorporated into buildings built by or in conjunction with our BNMC partners.

ENRICH CAMPUS LIFE.

Although nearly 14,000 students, faculty, and staff are expected to study and work at Downtown Campus, most of this population will likely live elsewhere: in neighboring Allentown and the Fruit Belt, farther south in Buffalo, or at North or South campus or throughout the city and region. To make up for this smaller number of on-campus residents, campus life facilities on Downtown Campus can be designed to attract and be enlivened by the broader population of the medical campus and the surrounding community.

To save costs and ensure that campus life facilities meet the needs of other UBMC member employees and visitors, UB will also seek to build some of these facilities in partnership with other BNMC institutions. Such shared facilities could include parks and other outdoor spaces; meeting halls and multipurpose rooms; recreation and wellness facilities; casual dining; child care; and security.

ON-CAMPUS DINING

Although restaurants are plentiful in neighboring Allentown and the Theater District, there are few dining options on the campus itself. The CIDE has a small café, and a café is planned for the UB Downtown Gateway. Given the dense urban setting and the multiple institutional and community populations on and near the campus, however, it is likely that most new din- ing and food shopping choices on Downtown Campus will be privately operated and housed at the ground level of new and renovated mixed-use buildings constructed by UB and our partners on Main and Ellicott streets and Michigan Avenue.

ON- AND OFF-CAMPUS HOUSING

Although there are many off-campus housing options convenient to Downtown Campus, underclassmen, international and out-of-town students, and other students seeking a supportive environment, immediate sense of community, and concentrated learning experience will generally demand for on-cam- pus university housing.

The plan assumes that about 20 to 30 percent of undergraduate students associated with the health sciences schools will seek to live in purpose-built student housing near Downtown Campus—lower than the 40 percent on-campus residential population projected by the plan for our other campuses. Many undergraduates, particularly underclassmen, will choose the independence of off-campus living nearby or in the center of downtown Buffalo, also only a short Metro Rail ride away. These options will become increasingly attractive once the plan’s proposed transportation improvements are implemented. New housing built for students on or near Downtown Campus should offer traditional and suite-style accommodations for undergraduates, as well as student services, 24-hour live-in supervision, maintenance and security, conflict resolution services, and referrals to critical campus services. It should include spaces and services targeted to students in the AHC, analogous to those at Finn Village targeted to students at the Law School, to maximize its attractiveness in the competitive housing market. These could include study hubs with healthy vending options and冷笑 during extended hours, group and individual study rooms, videoconferencing capability, and online access to videotaped lectures and a shared BNMC digital library.

Student housing built to serve Downtown Campus could include a mix of unit types to attract upperclassmen and graduate students, or even faculty and staff. The best location for this hous- ing would be along the edges of the medical campus, preferably along Michigan Avenue or Main Street, to help tie Downtown Campus to the surrounding residential neighborhoods, contribute to the liveliness of neighborhood streets, and support local retail. For these reasons, these two streets are also identified as desirable locations for new mid-rise housing in the Four Neighbor- hoods. One Community development plans for Allentown and the Fruit Belt.

Further study is needed to determine the demand for university housing on Downtown Campus, and to consider partnerships with private developers to provide both on- and off-campus housing opportunities in the area. Each residence built downtown will be taken as an opportunity to learn and to adjust our approaches for subsequent projects.

ATHLETICS, RECREATION AND WELLNESS

A new UB recreation facility, open to staff of BNMC member institutions and the community at large, would be a center of Downtown Campus life and a key point of social contact among students, faculty, and staff of the health sciences schools, their colleagues at other BNMC institutions, and the people they serve.

While Downtown Campus is a natural location for university wellness services—complementing a new wellness center at North Campus—more study is needed to determine whether such services will be accommodated within a new recreation center, in a new stand-alone facility, or in facilities distributed throughout the campus, and whether such services will be managed by UB or one of our BNMC partners. Such services will complement two existing health and wellness programs offered by UBMC Inc.: the Healthy Communities Initiative, which is working to develop a pedestrian- and bicycle-friendly environ- ment; and the Healthy Worksite Program, which sponsors wellness lectures, guided walking tours of the medical campus and surrounding neighborhoods, and an annual Summer Well- ness Block of events.

ARTS AND CULTURE

While the focus of Downtown Campus will be on the health sciences and civic engagement, it will also integrate arts and culture into our facilities to inspire and enrich the daily lives of everyone on or near the campus. UBMC Inc. has already de- veloped a public art master plan for the acquisition and display of artwork at strategic locations on the medical campus. The CIDE has a similar program, the Art Project, for the display and promotion of artwork within the building. And the UB Down- town Gateway is also a likely venue for art and artistic activities. UB will pursue partnerships with arts organizations in the Fruit Belt and performing arts venues in the Theater District to en- rich Downtown Campus with a full range of cultural offerings.

STUDENT ACTIVITIES

A new student union, perhaps combining many of the other learning landscape and campus life facilities described here with a central gathering place and space for co-curricular ac- tivities, will be a priority for Downtown Campus to help create a distinctly UB sense of community on the campus and in surrounding neighborhoods.
**Downtown Campus: Connecting**

While discovering is the driving force behind the growth of Downtown Campus, connecting is what it will make possible. For both programmatic and geographic reasons, it will be con-
nected like no other UB campus—to what will be UB’s Academic Health Center, and to all of Buffalo and Western New York. Improving connections to and within Downtown Campus is also critical to leveraging maximum local and regional economic growth from UB’s Academic Health Center, and minimizing its impacts on traffic and air pollution.

The same guiding concepts for connecting on our North and South campuses will apply here, but the urban street grid will integrate Downtown Campus with the surrounding neighbor-
hoods in a more fundamental way, creating an even greater responsibility for UB to uphold these principles:

**Open campuses:** An urban campus based on an infill devel-
opment strategy is, by definition, an open campus. The desire to share some of our facilities with our BNMC partners and local residents will require a high level of attention to the design of the public realm, and to provisions for safety and security, on Downtown Campus.

**Seamless connections and equitable access:** Al-
though Downtown Campus is a short walk, bus or subway ride from an endless variety of residential, dining and entertain-
ment, and cultural opportunities, many of the UB employees on the campus will be relocating their primary place of work from North or South campuses, where cars are the dominant mode of travel. A significant effort will still be neces-
sary to make the most of existing connections by encouraging walking, biking, and transit use as alternatives to cars.

**BRING US CLOSER TO OUR NEIGHBORS AND GROW IN CONCERT WITH OUR COMMUNITIES.**

Beyond the clinical programs of the AHC, UB will bring new connections to the neighboring com-
nunities through the Educational Opportunity Center and other programs in the UB Downtown Gateway. Many of the campus life amenities of Downtown Campus will also be open to communi-
ty use. Improved physical connections through the medical campus and to the neighborhoods across Main Street and Michigan Avenue, discussed under Broaden Transportation Options below, will also bring us closer to our neighbors and help en-
sure that campus growth supports neighborhood development through increased foot traffic.

A strong sense of safety and security for UB, the medical campus, and the surrounding neighbor-
hoods will be critical to attracting world-class talent to the AHC and leveraging the growth of Downtown Campus for local revitalization through increased foot traffic. University Police has identi-
cified needs for a comprehensive facility with a communications and dispatch center, emergency operations center, and an enhanced police radio system, all of which should be shared by the security forces of our BNMC partners in order to coordinate efforts and maximize efficiency. Downtown Campus growth can support improved

**security in other ways, too; proceeds from the sale of part of Goodrich Street to Kaleida were used to fund streetscape im-
provements and new surveillance cameras in the nearby Fruit Belt neighborhood.**

As noted above, Downtown Campus will rely upon growth in neighborhood-based housing, dining, retail, arts and culture, and other services to help support campus life. While UB will supply some of these functions within new academic and cam-

**BROADEN TRANSPORTATION OPTIONS.**

The university must do everything it can to encourage stu-
dents, faculty, and staff to use alternatives to single-occupancy vehicles to reach Downtown Campus from their homes or UB’s other campuses. The cost of providing parking in downtown Buffalo is high; land for parking on the campus is scarce and in demand for other uses; and UB has pledged to reduce its carbon emissions to net zero. Fortunately, public transit is convenient to Downtown Campus, and the street grid provides a strong foundation for walking and biking.

**CREATE WALKABLE, BIKE-FRIENDLY CAMPUSES.**

The linear park and roadway improvements planned for Ellicott Street will be the backbone of the campus pedestrian and bike system, providing easy access to the entire campus and all of the potential sites for new UB facilities.
Campus. The proposed extension of the Metro Rail to North Campus will not only provide a one-seat ride between all three UB campuses, it will also greatly improve access by suburban residents to Downtown Campus and the surrounding neighborhoods, and by Allentown and Fruit Belt residents to suburban jobs and services (see Chapter 3).

The Allen Street extension and potential Allen (Medical Campus Station redesign offer an opportunity for UB, NFTA, and BNMC Inc. to work together to make sure that the new station incorporates the best features of the transit pavilions proposed for other UB campuses, such as a bike station, Buffalo Blue Bicycle hub, waiting room for shuttles and buses, a café or vending area, and information about all UB, NFTA, and BNMC transit services and bike routes.

The UB Blue Line shuttle, which serves UB’s properties throughout downtown Buffalo, will have a faster, more compact route once the Educational Opportunity Center moves to its new building at the UB Downtown Gateway from a location five blocks to the south. BNMC Inc. is exploring options for NFTA to take over or operate this shuttle or equivalent service, perhaps through changes to the Metro Bus routes that operate on or near the campus.

The Blue Line shuttle links South Campus with Downtown Campus. The UB Blue Line shuttle, which serves UB’s properties throughout downtown Buffalo, will have a faster, more compact route once the Educational Opportunity Center moves to its new building at the UB Downtown Gateway from a location five blocks to the south. BNMC Inc. is exploring options for NFTA to take over or operate this shuttle or equivalent service, perhaps through changes to the Metro Bus routes that operate on or near the campus.

The UB Blue Line shuttle, which serves UB’s properties throughout downtown Buffalo, will have a faster, more compact route once the Educational Opportunity Center moves to its new building at the UB Downtown Gateway from a location five blocks to the south. BNMC Inc. is exploring options for NFTA to take over or operate this shuttle or equivalent service, perhaps through changes to the Metro Bus routes that operate on or near the campus.

PROVIDE SMOOTH TRANSIT CONNECTIONS.

From north to south, the Summer/Best, Allen/Medical Center, and Theater District stations provide convenient NFTA Metro Rail service to UB stations. UB operations at these stations will be coordinated so that the buses arriving at these stations will provide access to the nearest UB destinations, and select UB destinations every half hour. This service may eventually be phased out if an NFTA Uni-Pass is implemented and the hours of Metro Rail service are extended (see Chapters 3 and 5).

IMPROVE THE FIT BETWEEN CARS AND OUR CAMPUSES.

Current plans by the City of Buffalo and BNMC Inc. will result in some changes to the existing street pattern. The conversion of Ellicott Street to two-way traffic will help reduce speeds, improve access to parking, and reinforce a campus character for the street. Kaleida’s purchase and closure of part of Goodrich Street to allow at-grade sheltered connections between the GVI and BGH will have little effect on local traffic, since Goodrich does not extend into the surrounding neighborhoods.

The plan for Downtown Campus proposes two further changes to improve both pedestrian and vehicular access to UB facilities. If McCarty Gardens (Site 4) is redeveloped, the plan proposes connecting the extension of the surrounding street grid into the site, reconnecting Virginia Street east to west, and extending both Oak Street and Elm Street north to Virginia. This re-establishment of the historic street grid would strengthen connections between Allentown and the Fruit Belt, and between the medical campus and the rest of downtown Buffalo to the south. It would also break the site down into manageable development parcels, provide access to parking located at the interior of the site, and create some additional public space for pedestrian and street life within the site. Similarly, if Pilgrim Village (Site 1) is redeveloped, the plan proposes a new roadway parallel to Ellicott Street, aligned with a new spur from Goodell Street to North Street east of the GVI.

The plan also recommends converting Goodell Street from one-way to two-way traffic along its entire length in order to help calm traffic exiting the Kensington Expressway and facilitate safer pedestrian crossings. Any of these roadway changes proposed under the plan would need to be implemented in cooperation with the City of Buffalo Department of Public Works (DPW), which would assume responsibility for maintaining these public streets. UB, BNMC Inc., and DPW should also work together to improve pedestrian crossing conditions at key intersections with specially paved crosswalks.

PRODUCE SUSTAINABLE TRANSPORTATION ALTERNATIVES.

Because of the ready availability of public transit and the limited availability of space for parking, Downtown Campus provides both an opportunity and a need to test some of the more aggressive transportation demand management (TDM) measures proposed by the plan (see Chapter 3).

The Uni-Pass, whereby UB student and employee travel on NFTA routes would be subsidized, would create a powerful incentive to use transit rather than drive to Downtown Campus. So would the monetary incentive or “cash-out” program whereby employees would receive a monthly allowance to spend on parking, transit, or other modes of travel as they choose—or keep for other uses. Pricing parking by proximity would also be an important measure to help finance the construction of new garages.

To ensure fairness and prevent unintended effects such as an increase in parking demand at UB South Campus, it will be necessary to carefully coordinate the implementation of TDM strategies on Downtown Campus and UB’s other campuses, and to coordinate the negotiation of the monetary incentive between current downtown employees and employees at North and South campuses, whose contracts specify different obligations on the part of UB to provide parking.

PROVIDE SUFFICIENT PARKING TO MEET DEMAND.

The medical campus has an extensive parking supply, with about 5,500 off-street parking spaces and 840 spaces on streets within the campus boundary, and shuttles to several parking facilities located off-site. However, the campus also has a rapidly growing parking demand. A study commissioned by BNMC Inc. projected an on-campus shortage of nearly 2,500 spaces by 2016 due to the growth of member institutions and the anticipated openings of the UB Downtown Gateway and the GIVE/CTRC/Biosciences Incubator. The Multi-Modal Transportation Structure in development by NFTA will help to meet this demand.

This study did not, however, account for the parking demand created by the relocation of the health sciences schools and related programs. Therefore, the plan for Downtown Campus suggests locations where an additional parking could be accommodated on campus to meet the demand when aggressive TDM strategies are employed (3,217 spaces). It does not assume the replacement of the UB Stampede by U-BRT in the extension of the Metro Rail to North Campus (see Chapter 3).
The density of Downtown Campus, the complexity of the health sciences schools and programs, the size and number of the other BNMC member institutions, and the multiple populations they accommodate and serve will make a comprehensive signage and wayfinding system imperative to help both everyday users and visitors find their way. This effort should be coordinated with the university-wide signage system improvements proposed by the plan (see Chapter 3).

Because the campus sits on the street grid, pedestrian-oriented signage on Downtown Campus will be relatively easy to locate. Pedestrian gateways at the campus edges nearest to the Summer/Bust, Allen/Medical Campus, and Theater District NFTA Metro Rail stations, and at the intersection of Michigan Avenue and High Street, will be marked as primary pedestrian entries in order to help support transit use as well as encourage foot traffic from Allentown, the Fruit Belt, and the rest of downtown Buffalo. Identification signage at all UB facilities will also be crucial to distinguish these from other medical campus buildings.

Signage for Downtown Campus should express an institutional identity that is distinct from that of the other BNMC institutions yet contributes to the larger collective identities of both UB and the BNMC. A thoughtfully designed new signage concept for Downtown Campus, coordinated with the university-wide signage system, can acknowledge the relationships between Downtown Campus and the BNMC, and among the different health sciences schools, while providing a distinctive marker for each individual UB building—perhaps by using color to distinguish between institutions, and symbols, shapes, or numbers to distinguish between buildings.

In order to broadcast UB’s newly prominent presence in downtown Buffalo, the university is in the process of designing new signage for the UB Downtown Gateway. Other new or newly occupied UB buildings should have freestanding vehicular-scaled building identification plaques at all entrances. Identification signage for existing buildings should be designed and placed in keeping with the character of the building. For all buildings, banners or individual letters affixed to building façades are recommended rather than rooftop signage or building wrappers.

Coordination is recommended between UB, the City of Buffalo, and NYSDOT to properly and consistently sign approaches to Downtown Campus from the region’s highways. This new approach signage should clearly reference both UB’s Downtown Campus and the Buffalo Niagara Medical Campus.

Vehicular signage should direct drivers from the major street approaches to the nearest parking facilities in order to minimize traffic through the center of the campus. A southern gateway at the intersection of Goodell and Ellicott streets would collect arterial traffic from the west, east, and south and direct it toward the proposed garage in the center of Site 4, if that site is redeveloped. A northern gateway at the intersection of Bust and Ellicott streets would collect arterial traffic from the west and north and direct it toward the proposed garage at the center of Site 1, if that site is redeveloped. Less prominent signage at two minor campus entrances, at the intersections of Michigan Avenue with Bust Street and Goodell Street, would similarly direct local traffic.
ENHANCE CAMPUS CHARACTER. The high degree of interconnectedness required between university facilities and those of our BNMC partners—including the co-location of multiple institutions in a single structure—means that Downtown Campus will be physically integrated into the medical campus, distinguished mostly by signage, as discussed above. This is typical of urban academic health centers. Thus, UB’s efforts to establish its own physical identity for Downtown Campus will seek, at the same time, to reinforce the BNMC as a collective enterprise, building on its master plan, and working collaboratively with our partners to improve the campus public realm. We have a vision for parks and green infrastructure on the campus, but we also understand that this shared asset must be developed in concert with our neighbors.

The BNMC plan notes that the campus “is comprised of diverse singular buildings with little sense of common identity.” The university supports and will work toward that plan’s goal of creating a cohesive public realm to reinforce the BNMC “brand” overall, while maintaining individual institutional identity. The plan’s public realm and brand reinforcement recommendations, including signage, are being implemented. Most important among these is the linear Ellicott Street park, intended to help tie the diverse elements of the medical campus together with a continuous open space of unified character. The 30-foot-wide park along Ellicott Street will serve as the public spine of the campus, with a wide pedestrian path, tree-lined east-west streets and pedestrian walkways. The park widens to create a small landscaped plaza at the McCarley Gardens property, between Oak and Virginia streets. The unavoidable incursion by BGH and the GVI into the 30-foot setback on the east side of Ellicott Street creates a discontinuity in the park, although streetscape improvements such as planted beds will continue north from High to Bust streets, with another small plaza at the City of Buffalo parking garage property. Under the BNMC master plan, tree-lined east-west streets and pedestrian walkways will link the Ellicott Street park to green spaces such as the existing limited-access Kaminski Park at the center of Roswell Park’s property, the new healing garden at the base of the Global Vascular Institute, and new plazas along the Allen Street extension.

The plan for Downtown Campus extends the Ellicott Street park to the south, alongside the UB Downtown Gateway, and to the north, with larger landscaped areas on the west side of Ellicott Street across from BGH and the GVI, then continuing on the east side of the street along Site 1. The potential exists for four significant new open spaces to be connected to the linear park:

- a new McCarley Park, bigger than any existing green space in Allentown or the Fruit Belt, on both sides of the newly reconstructed Ellicott Street—intended to provide a significant new neighborhood amenity and encourage east-west pedestrian travel across the medical campus if Site 4 is redeveloped;
- a landscaped plaza at the southeast corner of Bust and Ellicott streets—intended to establish the northern gateway to the campus;
- a northward extension of Washington Street as a wide landscaped walkway from High Street to the Research Institute on Addictions—intended to connect Site 2 and the RIA to the Allen Street extension, and possibly passing through a new south-facing winter garden in the center of Site 2, and
- an eastward leg of the linear park along the north side of Goodell Street—intended to frame the entrance to the campus from Kensington Expwy.

These spaces would be designed to welcome public use, create a rich and inviting public realm, and provide relief from the density of the large buildings that are necessary as a part of a major academic health center. By linking to the Ellicott Street park, they would form the basis of a palpable campus environment within the grid of city streets—a network of green that is greater than the sum of its parts. And with a potential new “green streetscape” along North Street linking Symphony Circle and Front Park to Masten Park and Martin Luther King, Jr. Park, the Downtown Campus open space network could be connected to Frederick Law Olmsted’s citywide park and parkway system.

CREATE GREAT PUBLIC SPACES. While UB’s plan for Downtown Campus proposes adding new green space to the medical campus, the primary public space of the campus will continue to be its streets. To support streets that will engage the BNMC community in the life of the surrounding neighborhoods, and vice versa, UB’s plan for Downtown Campus provides a set of urban design principles for the campus. Some of these principles have been elaborated in the previous section, this section, and:

- Prioritize and adaptively re-use historic structures where possible, to ground the campus in our shared Buffalo heritage.
- Target new mixed-use development to neighborhood gateways with Allentown and the Fruit Belt, to leverage the greatest local economic benefit from campus growth.
- Enhance pedestrian and bike connections, to improve linkages to transit stations and encourage alternatives to car travel.
- Extend the street grid into the campus and restore interrupted streets, to integrate the campus into the surrounding neighborhoods and facilitate both pedestrian and vehicular circulation.
- Locate parking garages in the interior of larger sites, to keep streetfronts available for uses that will encourage foot traffic.
- Implement a wayfinding strategy to direct vehicular traffic from gateways and entrances directly to parking, to minimize traffic within the campus.
- Utilize a signage system that acknowledges the “umbrella” role of the BNMC while maintaining distinct institutional identities, to improve wayfinding and strengthen branding.

Special attention is required to transform the three primary arteries of the campus—Main Street, Elliott Street, and Michigan Avenue—into vibrant urban and campus streetscapes, leveraging with foot traffic supporting retail activity, serendipitous interdiscipli- 
ary collaborations, community exchange, and a sense of safety and security. Currently, these streets are underpopulated, and Main Street and Michigan Avenue serve largely to isolate the medical campus as a world apart. Roadway, streetscape, and pedestrian improvements described in previous sections of this chapter will help, but the solution must also include strategies to improve the utilization and appearance of the buildings lining these streets.

As noted under the heading Assets and Challenges above, these streetscapes are physically incomplete. Many buildings do not directly address the street, and many of those that do address the street present a blank façade or are too short to reinforce the sense of enclosure needed to define a street as a cohesive open space. The wide range of building scales along these streets makes it difficult for pedestrians on the adjoining sidewalks to interpret their environment—and, therefore, to feel comfortable in it.
The plan generally supports the Four Neighborhoods, One Community plans for Main Street and Michigan Avenue, which recommend the design of new buildings to create consistent streetwalls and building scales, to provide a transitional scale between the larger institutional buildings at the campus core and the smaller residential buildings in the surrounding neighborhoods, and to locate active uses behind glass at street level. The plan’s vision for Main Street is a regional artery with wide sidewalks, historically inspired streetscape improvements, and new ground-level stores, bars, restaurants, and cafés below upper-level offices, lofts, and apartments. The plan’s vision for Michigan Avenue is a local street with neighborhood-scaled streetscape improvements and new ground-level retail, offices, and community spaces below upper-level offices and apartments. The plan also recommends concentrating new tall institutional buildings with large footprints on Ellicott Street, the main “campus street,” where Buffalo General Hospital has already established a larger scale and the linear park will prevent the street from feeling like a canyon. As elsewhere, these new buildings should establish a consistent streetwall to avoid creating ambiguous in-between spaces alongside the sidewalks, or large gaps filled with parking. As at UB’s other campuses, the plan’s recommendations for enhancing the pedestrian experience, including prominent entrances, transparency, and active uses at street level, should apply to all new and renovated buildings on Downtown Campus (see Chapter 3).

REVITALIZE CAMPUS LANDSCAPES.

While the landscape plans for North and South campuses focus on natural or naturalized assets such as the Onderlago Escarpment and Lake LaSalle, the landscape plan for Downtown Campus must build on an entire urban environment. Even in this context, it is possible to create an outdoor public realm that contributes to the beauty and identity of the campus and helps mitigate its environmental impacts. To encourage walking and its benefits to health and a sense of campus community, the design of Downtown Campus landscapes should provide for an engaging and comfortable pedestrian experience. Open spaces should be planned around sunny spots wherever possible, and wind mitigation techniques should be incorporated through building design and tree plantings. Trees and plants should be selected to provide a four-season palette of color. Enclosed corridors between buildings should be made either above or below the ground floor to prevent obstructions to street-level foot traffic.

While the primary streets through the campus will likely be asphalt or concrete to withstand higher traffic volumes, smaller secondary streets within the campus might incorporate areas of special paving to slow car traffic and provide visual interest. In order to emphasize the pedestrian nature of the streetscape, sidewalks and crosswalks should be of high-quality materials with a human scale and texture, rather than asphalt and painted lines. Specially paving on certain sections of sidewalks and at building entries can help identify UB premises and buildings.

The development of Downtown Campus can be made more environmentally and economically sustainable through the intensive use of streetscapes to manage stormwater flows. Permeable paving in low-traffic, parking, and pedestrian areas should be considered in conjunction with safe alternatives to de-icing salt. Throughout the campus, rain gardens and continuous tree trenches within parks and alongside non-porous pedestrian paving should be used – instead of lawns and isolated tree pits – to intercept stormwater from rooftops and hardscapes, divert it from municipal sewers, and absorb and filter it for irrigation or transpiration.

On Downtown Campus, UB has an opportunity to implement its Climate Action Plan and fulfill its American College and University Presidents Climate Commitment without having to retrofit many existing facilities. The university should target new building and landscape construction as an “address” for the entire campus. Its scale can accommodate the large floorplates required by academic health center programs, moderated by more green space. While the primary streets through the campus will likely be asphalt or concrete to withstand higher traffic volumes, smaller secondary streets within the campus might incorporate areas of special paving to slow car traffic and provide visual interest. In order to emphasize the pedestrian nature of the streetscape, sidewalks and crosswalks should be of high-quality materials with a human scale and texture, rather than asphalt and painted lines. Specially paving on certain sections of sidewalks and at building entries can help identify UB premises and buildings.

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The chapter’s discussions of discovering, connecting, and placemaking established general urban design principles for the medical campus that will be advanced through the growth of UB’s Downtown Campus. Rather than being limited to any particular site or sites to be developed by UB, these principles are intended to guide a new level of collaborative planning with all of our BNMC partners seeking to develop on the campus. Together, these principles constitute a cohesive vision for the campus that will facilitate interdisciplinary collaboration, connect the campus to its neighbors, and enhance its physical identity. Designed as a landscaped campus street lined with institutional buildings, Ellicott Street should be the “common address” for the entire campus. Its scale can accommodate the large floorplates required by academic health center programs, moderated by more green space. While the primary streets through the campus will likely be asphalt or concrete to withstand higher traffic volumes, smaller secondary streets within the campus might incorporate areas of special paving to slow car traffic and provide visual interest. In order to emphasize the pedestrian nature of the streetscape, sidewalks and crosswalks should be of high-quality materials with a human scale and texture, rather than asphalt and painted lines. Specially paving on certain sections of sidewalks and at building entries can help identify UB premises and buildings.

As noted earlier in this chapter, approximately 4.2 million GSF of space will be required to accommodate the academic, administrative, and support, and campus life program for a projected population of 14,000 students, faculty, and staff on Downtown Campus. Subsequent sections of this chapter described UB’s intensive, multi-partner infill growth strategy, and explained how a few basic principles of urban design, consistently applied, can help leverage campus growth into campus competitiveness and neighborhood revitalization.
None of these elements of Downtown Campus success is dependent on any particular site, changing real estate conditions and other factors will determine the ultimate build-out of the campus over a period of many years. Nonetheless, the university realized that it would be instructive to “test fit” our space requirements, development strategies, and urban design principles to the sites that are or may be available for development. This conceptual exercise tests options for site capacity, building massing, and programmatic adjacencies on four of the many possible combinations of Downtown Campus development sites.

In addition to UB facilities, these test fits illustrate other possible or planned new facilities on the medical campus, including Kaleida’s MOB and ambulatory services center, which was described earlier in this chapter. Also shown in three of the four test fits is privately developed incubator space to accommodate new or growing businesses based on research by UB and our BNMC partners.

Each one of the four test fits developed for the plan accommodates nearly all of the required UB program. None of them accommodate all of the projected student housing demand of 20 to 30 percent of the total Downtown Campus undergrad population, since most or even all of the new housing built to serve these students could be built adjacent to rather than on the campus. Given the space needs of our health sciences schools and related programs, and our desire to leverage the growth of Downtown Campus for neighborhood revitalization, it would not make sense to dedicate a large portion of the limited land within the campus to new housing.

All of the test fits show the development of the block bounded by Main, Goodrich, Ellicott, and High streets (Site 2), as well as either Pilgrim Village (Site 1) or McCarley Gardens (Site 4), or both. Individually or together, these two sites have significant potential for UB’s Downtown Campus. Site 1 would allow for “coatless connections” to BSU, the teaching hospital for UB’s health sciences schools, and to other Kaleida Health facilities. Site 4 would fill a gap in the physical and programmatic fabric of the campus, and tie the UB Downtown Gateway to the rest of the campus.

Each combination of development sites has clear programmatic and physical implications. Test fits A and B show that the elimination from consideration of either Site 4 or Site 1, respectively, would require Downtown Campus buildings that are eight or more stories high, without the possibility for scaling down at the edges of the surrounding neighborhoods. Alternatively, more sites — for example, Site 5, which is part of Kaleida’s growth plans — would need to be used to accommodate UB program under either scenario, leaving fewer infill opportunities for our partners in the BNMC.

The development of both Sites 1 and 4, shown in test fits C and D, would have several advantages. While still making efficient use of the available land, it would allow for reduced Downtown Campus building heights overall, with a wider range of building scales to provide a transition to the surrounding neighborhoods. It would create space for our BNMC partners or others to infill Downtown Campus with their own new facilities, intensifying the mixing of academic, clinical, and office settings that is the primary purpose of an academic health center. In particular, it would provide more space on the medical campus for translational research and business development, the primary means by which an academic health center generates new jobs. Developing both Sites 1 and 4 would “bookend” the medical campus with two clusters of UB and related facilities — one south, one north, both with easy access to transit and to neighborhood amenities, both with the potential to establish a distinct UB character and a major presence at one of the primary gateways to the entire campus. Together with UB’s CTRC and Biosciences Incubator, Sites 1, 2, and 4 would establish a nearly continuous UB presence along Ellicott Street with strong connections to all four campus edges. Skillfully knit into the street grid, open space network, and building massing of the medical campus and surrounding neighborhoods, such a scenario would provide a strong programmatic and physical foundation for UB’s Downtown Campus.

The program is placed without the acquisition of the McCarley Gardens site.

The program is placed without the acquisition of the Pilgrim Village site.

Medical Office Building and related Kaleida program are on Site 2, opposite Buffalo General Hospital.

Medical Office Building and related Kaleida program are on Site 1, at the north gateway to the medical campus at Best and Ellicott streets.
For the sake of developing a comprehensive vision for UB’s Downtown Campus, the plan illustrates one of the four test fits in greater detail. Test fit D was selected because it fully embodies UB’s framework for development on the medical campus and provides an advantageous balance of programmatic concentration and adjacencies, physical placemaking and community engagement, and opportunities for supportive development by and with our partners.

The illustrative plan for Downtown Campus shows a campus transformed into a more comprehensive, more cohesive academic health center with more clearly defined streets and open spaces and a sensitivity to neighborhood context. UB’s School of Medicine and Biomedical Sciences and School of Nursing are shown anchoring the northern end of the campus on Site 1, with adjacencies to Kaleida’s Buffalo General Hospital (BGH), the building housing the Global Vascular Institute, UB Clinical and Translational Research Center, and UB Biosciences Incubator, and additional future Kaleida program. The latter is shown at the corner of Best and Ellicott streets, where a landscaped plaza marks the northern campus gateway, visible from the nearby Summer/Best Metro Rail station. Kaleida’s Medical Office Building (MOB) and ambulatory services center is shown at the corner of North and Ellicott streets, with a potential below-grade connection to the GVTCTRRC/Biosciences Incubator, which is in turn connected to BGH. The academic and clinical care buildings and privately developed incubator spaces on Site 1 are shown surrounding a central parking garage. A four-story incubator building on Michigan Avenue could provide a transition to the scale of the neighboring residences.

The block bounded by Main, Goodrich, Ellicott, and High streets (Site 2) is shown occupied by two medical school and nursing school buildings connected by a winter garden, aligned with a bridge over Ellicott Street to BGH. UB campus life facilities for the northern end of the campus could be clustered on this block along the Ellicott Street ground floor frontage, facing BGH, and around an interior corridor linking Ellicott Street to Main Street through the winter garden. On Main Street, neighborhood retail could be housed on the first of three stories built to the street edge, with offices, campus life, and academic space in a mid-rise tower above set back slightly from the street. Between the two buildings on this block, a new north-south public space is shown extending pedestrian access along Washington Street northward, through the winter garden, back to a new addition behind the Research Institute on Addictions. A new, taller parking garage shown on Ellicott Street between Goodrich and North streets, replacing the existing municipal garage, could have campus-related retail at its base facing Ellicott Street.

UB’s School of Public Health and Health Professions, School of Dental Medicine, and School of Pharmacy and Pharmaceutical Sciences are shown anchoring the southern end of the campus on Site 4, creating a nexus of academic and business development activity with the BNMC’s existing Innovation Center. The middle of Site 4 could be occupied by privately developed incubator space and a parking garage, with UBMD located to the north, facing the Buffalo Life Sciences Center across the new McCárley Park and reconnected Virginia Street. UB campus life facilities for the southern end of the campus, perhaps including a student union, could occupy the ground floor of the School of Dental Medicine building, overlooking both the park and Ellicott Street.

To the south, a completed Educational Opportunity Center and fully renovated UB Downtown Gateway building will establish the southern campus gateway at the end of a more peaceful, tree-lined section of Goodell Street designed to reduce traffic speeds coming off the Kensington Expressway. New incubator spaces lining both sides of the street could create a hub of biosciences technology transfer in a highly accessible location.
CONCLUSION

There are many possible paths to completing our Downtown Campus, but all will lead to the same place: a world-class academic health center that will bring Western New York’s medical education, research, clinical care, and technology-based business growth to the cutting edge of the 21st-century economy. Getting there will require the continuation of an intense collaborative planning process that is already well underway, building on the foundation of the Buffalo Niagara Medical Campus master plan.

BNMC Inc., Kaleida, and Roswell Park will continue to be our lead partners in the near future, but we are determined to broaden inter-institutional cooperation in the months and years ahead. We expect to break ground on more first-of-their-kind buildings like the GVI/CTRC/Biosciences Incubator. We expect to leverage the shared interests and resources of our partners in the BNMC to co-develop a full spectrum of campus life facilities and programs. We expect to continue working with community organizations, churches, and other representatives of Allentown and the Fruit Belt to ensure that the growth of Downtown Campus improves the lives of those with whom we will share our streets, our parks, and our everyday experiences outside of the classroom, lab, and office.

The University of Buffalo’s earliest accomplishments were made on an interdisciplinary, multi-institutional medical campus downtown. The first purpose-built facility for the Department of Medicine, completed in 1849, boasted lecture halls with such novel learning tools as upholstered chairs with tablet arms. Together, the original building and the adjacent Sisters of Charity Hospital joined medical education and clinical practice to achieve breakthroughs in fields such as midwifery and animal experimentation. UB’s first female graduate and first African-American graduate passed through here. In 1893, the newly established Dental Department joined the School of Medicine in UB’s first interdisciplinary facility, a new building just a few blocks away.

We live in a very different era, but the growth of Downtown Campus represents the University at Buffalo’s return— not only to downtown Buffalo, but to a place specifically designed to fulfill the maximum potential of interdisciplinary and inter-institutional collaboration, now as then generating some of the world’s most scientifically, economically, and socially valuable new knowledge. With such novel learning tools as simulation laboratories and nanotechnology, we will achieve new breakthroughs, perhaps in fields as yet unknown to us. Faculty and students from around the globe will pass through here. The growth of UB’s Downtown Campus may echo the accomplishments of the past. But it will anchor us solidly in the future.
People can believe in a plan when the means for implementation are real. People can get behind a plan when the approach to implementation balances vision with pragmatism. It is important that the Comprehensive Physical Plan describes things that should be done to make the University at Buffalo better. It is important that the strategic plan behind it, UB 2020, makes sense. But none of it matters unless we get it done.

The plan was first presented at a time when economic crisis, financial turmoil, and state fiscal emergency strained to the breaking point all credibility in grand designs for the future. But this plan and the institutional strategic plan behind it were not created for 2009 or 2010 or even for 2020. They were created for the remainder of the 21st century and their underlying logic remains convincing and powerful.

In these times, the value of a great public research university to an economically struggling city, region, and state is greater and more relevant than ever. The knowledge the university creates is still the fundamental capital of our age. And, in these times, the importance of making our campuses great places in order to attract the best faculty, students, and staff is still preeminent. We could make no better investments in our future.

This chapter outlines, first, our approach to implementation. We treat the plan as a “living document” that can and must be adapted to meet evolving priorities, to grasp unforeseen opportunities, and to respond to ever-changing economic conditions. It provides a compelling vision and a definitive step-by-step process for fulfilling that vision. But it also lays out a framework for adjusting the plan to a wide range of unanticipated circumstances according to clear and convincing principles.

Second, this chapter describes the steps we will take to develop the greater organizational and financial capacity that UB will require to fully implement the plan. The university already has substantial capacity to produce, maintain, and renew our facilities and grounds. But the extraordinary volume of built space that the plan prescribes exceeds our current ability to deliver it in the time frame our institutional strategic plan suggests. Additional staff and innovations in management structure, decision-making mechanisms, legal authority, financial tools, and more will be required to meet this new and, frankly, unprecedented challenge. Building that capacity, within UB and with our institutional partners, is as much a part of this plan as any of the proposed physical changes.
Implementing the Plan

This plan is robust. It balances clear vision with flexibility. It spells out in detail the step-by-step process by which the growth of the university, the migration of academic units, and the transformation of campus environments can take place. At the same time, it provides a framework of analysis and principles that will allow us to adjust the plan as circumstances require year after year.

Any plan with the size and scope of this one—7 million square feet of space to be constructed over a minimum of 20 years—will encounter many changes between now and then. Many of them will be unforeseen; some are unforeseeable. The plan is strong enough and flexible enough that it can be adapted to respond to most of these.

Some changes will occur in a realm beyond our control—global climate, and population growth and migration. But some embraces, fundamental changes in our energy economy, the health, technology and more. We already expect, and the plan is strong enough and flexible enough that it can be adapted to respond to most of these.

Still other changes will be within our power to manage but still require ongoing adjustments to the plan. These include the evolution of interdisciplinary research initiatives under the rubric of strategic strengths; development of a variety of programs aimed at undergraduates such as the Honors College and the Undergraduate Academies; and our work with close partners on the Buffalo Niagara Medical Campus downtown.

Changes at any of these scales may require that we adjust what we build, how it is designed, where we build it, how we finance it, and how quickly we complete the implementation of the entire plan. This is to be expected with any plan. That’s why, like most plans, it is recommended that the Comprehensive Physical Plan be reviewed every year and updated at least every five years. Yet, we expect the plan will have lasting strength because of the soundness of the logic and strategy on which it is based.

The plan includes a detailed project-by-project phasing scheme that maps the sequence of moves that need to be made in order to support the continuing operation of all units at all times. It also estimates the cost of implementation, year-by-year and over the life of the entire plan. Because of the uncertainties of funding, no specific year has yet been attached to any project beyond the first phase of the plan, which is already underway. The more quickly the plan is financed, of course, the sooner UB can reach its strategic goals.

However, this implementation plan is also a reality check on time, space, and money. It will serve as a point of departure for considering changes in terms of the feasibility of the scope, location, sequencing, and financing of projects. If we cannot or should not do something in the plan as originally set, this detailed framework can help us evaluate what else will work.

Framing UB

In 2007, to help launch the Comprehensive Physical Plan process, UB asked its students, faculty and staff to submit photographs that captured the university. Through August 2009, nearly a thousand photographs by almost 200 photographers were submitted. Each photo tells a story of how we see our campuses, and there are lessons to be learned from each one.

In this chapter, a selection of these photos are shown—edited, admittedly, to tell the optimistic story of our campuses. We are mindful of our many shortcomings, but we are confident that the plan will show us the way to overcome them.

Principles for the “Living Plan”

First among the basic principles for the “living plan” is that program and phasing must be flexible. Flexible programming means that the plan can adapt to accommodate new initiatives in teaching, to take advantage of new partnerships in research, or respond to any other new circumstances—again, by adjusting what gets built, where, and how.

Flexible phasing means that the time frame of the plan can be compressed or extended depending on the availability of funds or shifts in student demand for specific programs or any other changing circumstances. Thus, the current scheme segments the planned migration of academic units in four phases, but the actual length of each phase is not fixed.

The proposed migration sequence—and any adjustment to it—must strive to keep the campuses whole at all times. At the end of each phase, each campus should be complete in terms of program, function, and physical appearance. The academic, support, and campus life program elements of each campus should be in balance and sized correctly for the campus population. It should be possible to maintain, operate, and travel to each campus without the need for new off-campus swing space. Each phase should bring a new level of beauty and comfort, and a stronger sense of identity and place, to encompass each entire campus.

This kind of flexibility is possible because the plan addresses not only which academic programs should be located on which campuses, but also what each campus needs, in its own right, to be a better place. We will naturalize the periphery of North Campus and retrieve the front lawn of South Campus regard- less of what academic units go where. The Oval should be built and the ring road on South Campus should be completed no matter what else. The growth strategies that identify appropriate building sites and open spaces will apply whatever the arrangement of academic units.

Finally, whenever it is necessary to consider adjustments in the plan, the relevant decision-makers should always resort to the basic principles that have guided the planning from the very start: to make our campuses great places attractive to the best students, faculty, and staff; to be a model for sustainable development and design; to be careful stewards of the capital resources under our control; to relate our planning to that of the communities of which we are a part; to connect our campuses seamlessly to one another and to our surround- ing neighborhoods; and above all, to aim all our work toward achieving academic excellence.
PHASE 1: INITIATING THE TRANSFORMATION

PHASE OBJECTIVE
Several projects under the university’s current 2008-2013 capital plan will initiate the transformation of the campuses. Some projects already have secure funding for design and construction; others do not yet have full funding, but are proceeding with programming (a project phase in which a building’s expected uses are translated into square footage requirements) and conceptual design. In addition to these strategic initiatives, the state is investing approximately $64 million per year over a five-year period in critical maintenance projects needed to bring UB facilities and infrastructure up to standard. These include interior building renovations, repair of masonry building exteriors, replacement of windows and roofs, mechanical systems replacement and upgrades, replacement of campus utility infrastructure such as electrical power, chilled water, and steam, roadway repaving, and projects such as the renewal of Founders Plaza on North Campus. Planned and executed in strategic relation to the plan, these projects will go far to achieve plan goals.

OVERVIEW
On North Campus, the first phases of the reconstruction of Founders Plaza have already demonstrated how a focus on the attractiveness of the public realm can enliven outdoor spaces. The South Ellictic housing development will respond to demand for increased on-campus undergraduate housing with a “green” building that provides study hubs and other living-learning spaces. The Lee Road roundabout will initiate the creation of the Audubon greenway and create a safer pedestrian connection between the Ellictic Complex and the rest of the campus. The School of Engineering and Applied Sciences building will provide essential academic space while enclosing the north end of a new quadrangle at the center of the Engineering Precinct.

On South Campus, the reconstruction of Harriman Quadr will test sustainable landscaping and stormwater management techniques to be used across the university, as well as a new detention basin designed to capture runoff from Good-Year Hall. The total renovation of the newly re-named John Kapoor Hall for occupancy by the School of Pharmacy and Pharmacetical Sciences will demonstrate the university’s commitment to sustainable use of existing building stock. The Heart of the Campus projects will introduce new informal learning environments into the central libraries on both North and South campuses. New or renovated child care centers on both campuses will support faculty and staff recruitment.

The UB Clinical and Translational Research Center and UB Biosciences Incubator on Downtown Campus, to be built atop Kaleida Health’s Global Vascular Institute, will prove the viability of institutional partnerships both in developing buildings and in creating cutting-edge educational, research, and clinical collaborations. The UB Downtown Gateway and Educational Opportunity Center will open up the campus to the community.

SCHOOLS HOUSING ON CAMPUS

North Campus
College of Arts and Sciences; Graduate School of Education; School of Engineering and Applied Sciences; School of Management; School of Social Work; Law School

South Campus
School of Architecture and Planning; School of Dental Medicine; School of Medicine and Biomedical Sciences; School of Nursing; School of Pharmacy and Pharmaceutical Sciences; School of Public Health and Health Professions

Downtown
Elements of the health sciences schools; civic engagement programs

PHASE-END PROJECTIONS

<table>
<thead>
<tr>
<th>School/Phase</th>
<th>North Campus</th>
<th>South Campus</th>
<th>Downtown Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
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<td>9,243</td>
<td>2,561</td>
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<tr>
<td>Faculty</td>
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<td>679</td>
<td>190</td>
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<tr>
<td>Staff</td>
<td>3,810</td>
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<td>Total students</td>
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<td>7,215</td>
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<td>Graduate and professional</td>
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<td>Total campus building area*</td>
<td>7.00</td>
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<td>Total new construction*</td>
<td>0.60</td>
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</tr>
</tbody>
</table>

*IN MILLION SQUARE FEET
PHASE 2: RESHAPING CAMPUS PURPOSES

PHASE OBJECTIVE

The migration of the School of Medicine and Biomedical Sciences and the School of Nursing will initiate the transformation of Downtown Campus into a comprehensive teaching, research, and clinical facility. The migration of the schools of law, education, and social work will begin the reinvention of South Campus as a center for inter-professional education, while changes in landscape and addition of facilities begin the work of humanizing North Campus.

OVERVIEW

On North Campus, the Oval, a new gathering space connecting the Spine to Lake LaSalle, will be defined by several new buildings with critical university-wide functions. The east and west extensions of Founders Promenade will be completed by new academic and campus life buildings, creating new public spaces at the centers of the Arts and Humanities Precinct and the Natural Sciences South Precinct. A living-learning quarter on the Furnas Lot will begin to connect the Academic Spine to the Ellicott Complex, and Law Road will be extended to Augspurger road through a traffic-calmed plaza, creating improved access for intra-campus shuttles.

On South Campus, a prominent new Law School building will create a second “front” for the campus facing a new primary entrance on Bailey Avenue, and reinforcing the historic pattern of pathways and quadrangles. The demolition of the Cary-Farber-Sherman complex will allow for the completion of Hayes Loop Road, a continuous road defining the academic core, and the construction of new landscaping, structured parking, and landscaped surface parking lots to create a more welcoming campus edge along Bailey Avenue. An enhanced secondary entrance on Wingdale Avenue will improve our connection to the University Heights neighborhood.

The relocation of the School of Medicine and Biomedical Sciences and the School of Nursing to space near Kaleida’s Buffalo General Hospital and the GUV/CTR/Biosciences Incubator will transform Downtown Campus into UB’s Academic Health Center. A total of nearly 1.5 million GSF of new academic buildings will be joined by a parking garage, joint development by UB and Kaleida along Ellicott Street including a medical office building and ambulatory services center, and incubator space on Michigan Avenue.

STRATEGIC PLANNING

This phase, which involves the largest quantity and complexity of construction UB has undertaken since the creation of North Campus, is expected to last longer than other phases. However, because it will start in 2013, planning for this phase must begin now. The following have been identified as critical first steps for this phase:

- Move the medical and nursing schools to Downtown Campus: This first migration must occur to initiate the creation of a world-class medical research and health care center in downtown Buffalo, and demonstrate UB’s commitment to the formation of a true campus. Early planning will be necessary to line up partnerships, assemble property, and initiate changes in academic programming and the provision of UB maintenance and operations.

- Take down the “temporary” buildings on South Campus: The removal of Hayes annexes A, B, and C, Acheson Annex, and Diefenderfer Annex will restore the dignified collegiate atmosphere of South Campus and signify the major changes to create. Creative planning of underutilized space in permanent buildings will be necessary to relocate the program in these temporary buildings.

- Create the Oval on North Campus: This great open space will announce the redesign and revitalization of the public realm on campus. It will be framed by three new facilities that have the power to make UB more competitive in attracting faculty and students: a university club, a recreation and wellness center, and the arts loft (part of Phase 3). A new mixed-use building on the new campus “Main Street” will house students as well as the University Bookstore and tenants of UB Commons displaced by construction of the Oval. These Phase 2 projects will also demand an immediate rethinking of how projects can get funded outside of the conventional state channels.
PHASE 3: OPENING THE CAMPUSES

PHASE OBJECTIVE
The campuses will gain critical new program elements to welcome residents of the surrounding neighborhoods and make the campuses more competitive environments in support of academic excellence and improved campus life. Downtown Campus will grow with the migration of the School of Public Health and Health Professions.

OVERVIEW
On North Campus, the development of Lee Road will be completed with new on-campus student housing and a hotel and conference center on the east side of the street, bringing new populations to enhance campus activity. Lake LaSalle will be rehabilitated with dredging and filling to create an ecologically healthy lakeshore habitat with new walking trails. The shared campus–community recreational facilities of the Audubon greenway will be nearly complete and major campus entries at Coventry, Flint, and Hamilton loops will be upgraded. An iconic new humanities center, a new engineering building, and a new public safety facility will create a better first impression of the campus.

On South Campus, a new professional education center will engage students and faculty from all of the schools with practicing professionals seeking continuing education. The transformation of the Main Street frontage from a busy arterial to a civic engagement programs will provide enhanced amenities to public transit users, UB shuttle and Stampede riders, and bicyclists. The southern end of Downtown Campus will begin to coalesce around a new facility for the School of Public Health and Health Professions and two new incubator facilities on Goodell Street. New UB construction at the northern end of the campus is completed by an addition to the Research Institute on Addictions and a new parking garage with more capacity on the site of an existing two-level City of Buffalo garage.
### Phase 4: Rounding Out the Campuses

#### Phase Objective

The campuses will be rounded out with new academic, campus life, and community engagement facilities and improvements. The migration of the School of Dental Medicine and School of Pharmacy and Pharmaceutical Sciences will complete the UB Academic Health Center on Downtown Campus.

### Schools House on Campus

<table>
<thead>
<tr>
<th>School</th>
<th>On North Campus</th>
<th>On South Campus</th>
<th>Downtown Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Arts and Sciences; School of Engineering and Applied Sciences; School of Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate School of Education; School of Architecture and Planning; School of Social Work; Law School; professional programs of the School of Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School of Dental Medicine; School of Medicine and Biomedical Sciences; School of Public Health and Health Professions; civic engagement programs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Phase-END Projections

<table>
<thead>
<tr>
<th>North Campus</th>
<th>South Campus</th>
<th>Downtown Campus</th>
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</thead>
<tbody>
<tr>
<td>Total population</td>
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<td>Faculty</td>
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<td>Staff</td>
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<td>Total students</td>
<td>24,239</td>
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<tr>
<td>Undergraduates</td>
<td>19,239</td>
<td>5,300</td>
</tr>
<tr>
<td>Graduate and professional</td>
<td>5,000</td>
<td>4,504</td>
</tr>
</tbody>
</table>

Total campus building area* | 10.50 | 3.60 | 5.30 |
Total new construction* | 0.90 | 0.50 | 1.20 |

*In MILLION GROSS SQUARE FEET

#### Overview

On North Campus, the thickening of the Academic Spine will be completed with new academic buildings and housing on the GovernorsLot. The Transformation of Putnam Way as a pedestrian thoroughfare with bicycle and transit access will be completed. New roadway connections will link the campus to the residential neighborhoods to the east and sports facilities and a mixed-use town center to the south. The recentification of the Flint and Millersport Highway intersections with Audubon Parkway interchange will create greatly improved campus entries from the south.

On South Campus, landscaping of Hayes Lawn will mark the restoration of the campus as a major regional historic asset. A laboratory school for conducting education research and putting Graduate School of Education ideas into practice, and campus-community playing fields surrounding it, will embody the neighborhood engagement focus of the campus. The conversion of some vacated buildings to campus life use will strengthen the center of student activity, and the conversion or construction of other buildings for business incubator use will streamline the process of bringing new ideas from the professional schools to the marketplace.

On Downtown Campus, UB’s Academic Health Center will be completed with the arrival of the School of Dental Medicine and the School of Pharmacy and Pharmaceutical Sciences at facilities on Ellicott Street. A facility for UBMD and incubator spaces will surround a parking garage, accessed by the restoration of the street grid through the southern end of the campus. McCray Park and a reconstructed Virginia Street will improve public access between Allentown and the Fruit Belt. Student housing on Michigan Avenue will step down to the scale of the neighborhood.
**CAMPUS- AND UNIVERSITY-WIDE IMPROVEMENTS**

The plan includes a comprehensive array of campus- and university-wide actions that may be implemented independent of the improvements outlined in the phasing plan above.

**SECURITY IMPROVEMENTS**

Planning and construction of major security improvements for North and South campuses, including new and better located “blue light” phones with emergency address capability, is included in U.B.'s current capital plan. A university-wide card key access system will be installed on a project-by-project basis as buildings are renovated. The plan recommends coordination of all capital projects with the CPTED (Crime Prevention Through Environmental Design) staff of the University Police. Improved security will also depend on our ongoing collaborations with the Amherst Police Department, the Buffalo Police Department, NFTA-Police, and security personnel for our partners in the BNMC. The plan, meanwhile, proposes new University Police facilities on North and South campuses, improves access on each campus for police and emergency vehicles, opens or preserves key view corridors, and specifies planting standards that maintain clear lines of sight while achieving other goals of landscape improvements on three campuses. More generally, the plan fosters the development of all of our campuses as places of life and activity that discourage criminal activity by providing “eyes on the street.”

**TRANSPORTATION DEMAND MANAGEMENT (TDM)**

Implementation of U.B.'s TDM program will be incremental; many of the proposed measures will require the kind of “culture change” that takes a generation to achieve full acceptance—which is why we are starting now. Throughout this evolution in how we go to and get around our campuses, we will continue to monitor and adjust these programs in order to maximize their effect on traffic and parking demand while ensuring that they remain flexible enough to meet the travel needs of all of our students, faculty, and staff. Refer to the priority and cost matrix in Chapter 3 for more information.

**Intermediate actions:** Develop a model that shows return on investment in TDM measures, based on avoided cost of constructing new parking. Continue to modify parking projections based on outcomes of immediate actions. Focus on TDM strategies that can be implemented relatively quickly but require a greater financial investment, including: upgrading the Stampede; planning inter-campus bike routes; lending free bikes to students who do not apply for a parking permit; limiting freshman parking on campus; unbundling student parking fees; providing monetary incentives and creating compensatory programs such as limited free parking passes and a guaranteed ride home to encourage employees to use alternative modes; and pricing parking by proximity to the academic cores of the North and Downtown campuses.

**Intermediate actions:** Implement strategies that require ongoing intensive coordination with outside agencies or a significant financial investment, such as completing an inter-campus bike route network; upgrading the UB shuttle fleet; improving NFTA Metro Bus service; subduing a Uni-Pass; implementing a University Bus Rapid Transit (UB-RRT) service; and providing a “one-seat ride” between all three campuses with a Metro Rail extension.

**BICYCLE IMPROVEMENTS**

Work with the GBnRTC, the Town of Amherst, and the City of Buffalo will continue to strengthen the bicycle culture on our campuses and to foster bicycling as a viable alternative form of transportation. We will work to confirm the plan's proposed on-street bicycle routes between the campuses (see Chapter 3), provide new signage and roadway markings, and include the routes on regional bike maps. In the short term, covered shelters with bike racks and maps at major destinations will be provided on each campus.

Because state and federal agencies have prioritized improvements to bicycle systems, and because such improvements can be made at relatively low-cost, implementation of the bicycle plan during the earlier phases of the plan is both desirable and possible. Early implementation items may include prominent “share the roadway” signage for on-street bike routes, a dedicated bike lane on Lee Road, new covered bike racks and Buffalo Blue Bicycle hubs, and showers and lockers for bicyclists at new bike stations.

**TRANSIT IMPROVEMENTS**

We will continue discussions with NFTA toward the proposed Uni-Pass and the expansion of Metro Bus service to our three campuses (see Chapter 3), especially new routes to North Campus (see Chapter 4). U.B. will also support continued study of Metro Rail in larger areas, including the Regional Plan Association report, and collaborating with NFTA on their further investigations. We will work closely with NFTA to plan and build a transit pavilion atop University Station on South Campus and to pursue the redevelopment of the Allen Street Station and other changes at our Downtown Campus. In the short term, we will provide improved shelters at those bus stop locations that will continue to be used when routes change in the future, based on the prototype under development by the Rehabilitation Engineering Research Center (see Chapter 3).

**WAYFINDING AND PUBLIC ART IMPROVEMENTS**

Implementation of improved signage will be incremental, in concert with new capital projects (see Chapter 3 and the Technical Guide on Signage and Wayfinding in the appendix for more information). U.B. will establish university-wide entities to oversee the designation of new place names and the acquisition and placement of public art, which will assist in wayfinding as well as helping to define and beautify our public spaces.

**HISTORIC PRESERVATION PLAN**

U.B. will create a comprehensive university-wide preservation plan, focusing on the nomination of properties to the National Register of Historic Places and other actions recommended in Chapters 3 and 5. Early steps should include the completion of a Historic Structures Report for historic South Campus buildings that do not have them, and the development of an estimate of costs associated with actions to enhance the proposed university historic district on South Campus, including exterior renovations, improved lighting, and interpretive signage, and to integrate these investments into the phasing plan.

**LANDSCAPE IMPROVEMENTS**

Some landscape projects proposed by the plan can be implemented in concert with nearby capital projects such as building or road construction, but the university will have to develop a financial model for larger initiatives, such as the rehabilitation of Lake LaSalle or the re-landscaping of Hayes Lawn. Phasing of landscape improvements will be modified in accordance with this model. On North Campus, necessary soil improvements will be undertaken in concert with specific landscape projects (refer to the Technical Guide on Soils in the appendix for more information).

**INFRASTRUCTURE IMPROVEMENTS**

Development on all three campuses will necessitate “enabling projects,” or investments beyond the scope of an individual building project that are necessary to provide our campuses with a strong and efficient backbone of utility services. A comprehensive plan for infrastructure investments in coordination with the phases of this plan will be more economical than a piecemeal approach undertaken on a project-by-project basis.

On North Campus, infrastructure improvements will anticipate the development of new building sites that are not connected to the existing central loop of utilities. Utilities along Lee Road will be upgraded under the 2008-2013 capital plan to support the construction of the South Efficient housing development and allow completion of the Lee Road-Audubon Parkway roundabout. Planning is already underway with the New York Power Authority on construction of a photovoltaic solar array that will provide electricity to the campus. In the future, the extension of utility lines along White and Hadley roads will provide infrastructure for development on the north side of the Academic Spine.

On South Campus, capacity of the central plant is projected to be adequate through all phases of the plan, because the net building area will not increase over time. In addition, ongoing renovations and retrofits, including upgraded cooling systems for the Biomedical Education Building and Biomedical Research Building and the extension of chilled water to Kimball Tower, will increase the efficiency of existing buildings, and help fulfill U.B.'s commitment to reducing energy consumption.

On Downtown Campus, options are available for individual buildings to provide their own physical plants; the university to build its own central plant or purchase distributed energy plants; or for BNMC partners, to work together with the City of Buffalo to determine the most environmentally and financially sustainable way to provide energy to buildings on the BNMC campus. Clearly the latter scenario represents the type of practical collaboration that will be required to have a truly integrated academic health center downtown. In the meantime, ongoing renovations and retrofits, including the recent replacement of the chillier plant at the Research Institute on Addictions, will increase the efficiency of existing UB facilities.
Chapter 7 — Implementation

Building UB — The Comprehensive Physical Plan

Section 1: Strategic Facilities Management

Constructions

Facility Condition Index: As part of the comprehensive facilities condition audit (FCA) completed in 2008 as part of the plan, each building has been given a grade, called its Facility Condition Index (FCI). The FCI represents the ratio of the cost to modernize a building's primary systems to the building's current replacement value. That is, if a building has an FCI of 0.5 or more, the university will have to spend at least 50 percent of the building's current replacement value in systems upgrades, not including new interior finishes and furnishings, or changes such as new insulation to meet higher energy standards, or changes such as reconfigured interior partitions to adapt to a new use. Thus, the cost of upgrading the primary systems of buildings such as Farber and Sherman halls, with FCI's of 30 and 72, respectively, for adaptive re-use would more likely exceed the replacement value of the buildings themselves. Any large investment in a building with a high FCI must be justified in relation to the other criteria cited below. The plan recommends that UB update the FCA every five years (see Regularizing the Capital Development Process, below). Adaptability: A building will no longer house its original program, and if its reconfiguration to accommodate new programs poses significant architectural, structural, or mechanical challenges, the cost of renovation will likely outweigh the cost to build anew. Large investments in these types of renovations must be justified in relation to other criteria. Siting: A building may have been built on a particular site because it was suitable at that time, because other more suitable sites were constrained, or because of short-term thinking that did not anticipate future growth or other necessary changes to the campus. As physical conditions on the campuses change, each building should be evaluated as to whether it holds the highest and best use for its particular site, or conflicts with key improvements such as the creation of functional loop roads. Significance: The architectural, historic, or cultural significance of a building must be considered and weighed against the other criteria above. The cost per square foot of renovating an historic building is often higher than that of new construction, due to outdated layouts, inflexible structural systems, incompatibility with modern infrastructural systems, and hard-to-match materials. However, the higher cost of renovating an historic building must be balanced against the value of retaining high-quality, long-lasting historic materials and the contribution a building makes to the identity and character of the campus, city, and region.

Construction Mitigation

The growth, migration, and transformation of UB’s campuses will entail many years of construction activity. While the end result aims to benefit both the university and the communities surrounding its campuses, the process will be unavoidably disruptive. For each project, UB will implement a construction mitigation plan to minimize potential negative impacts while maintaining the efficiency of construction work. Each construction mitigation plan will be formulated in response to conditions unique to each project, depending on the location of the site, and the scale, duration and nature of the construction activities. Elements may include:

- Traffic, circulation, and parking plans: A physical plan designating staging areas for materials, parking lots for construction workers and construction vehicles, temporary parking for displaced faculty, staff, and student parking spaces, and alternate routes for pedestrians and non-construction vehicles to avoid traffic delays.
- Noise and vibration monitoring and enforcement: A plan for testing whether construction, including excessive noise or vibration within campus and neighborhood buildings, and managing those impacts through scheduling and alternative methods of construction.
- Runoff and dust control: Includes on-site wheel washing of construction vehicles, daily street and path sweeping, erosion prevention, and surface water pollution prevention.
- Emissions control: Includes limits on idling, fuel specifications, and emissions standards for construction vehicles.
- Trash control: Includes methods for construction waste storage and disposal and management of rodent and pest infestation.
- On-site construction mitigation activities: Includes daily construction mitigation team site visits, weekly job meetings, and a system of warnings and lines. Open communication will be key to successful construction mitigation. Some of the tools that will be considered include:
  - Construction mitigation Web site: An information hub for the public that includes project plans, photos, and renderings; descriptions of how projects will benefit the university, the community, and the region; construction notices and updates; schedule and logistics plans; and contact information.
  - Community updates: Sent upon request by e-mail or conventional mail, a weekly summary of the information that can be found on the construction mitigation Web site including a “look ahead” at how the campus and community will be affected by upcoming construction activities, including parking restrictions, infrastructure shut-downs, and noise alerts.
  - Construction mitigation hotline: A 24-hour toll-free hotline that is automated to answer frequently asked questions, provide contact information, and record complaints and concerns.
  - On-site project information boards: Placards on job site fencing that include a project overview, rendering, project team, and contact information for questions and complaints. Construction mitigation tasks can be assigned to University Facilities, an independent project manager, or the construction manager. In the end, however, it is the university’s best interest to respond proactively to concerns and to maintain the valuable relationships that have already been forged with neighbors.
Chapter 7 — Implementation

Considerations

The majority of UB's greenhouse gas emissions come from the campus, and the Comprehensive Physical Plan are inescapable. We need to meet the goals of the ACUPCC and the Comprehensive Physical Plan. The connections between the CAP and the Comprehensive Physical Plan are inseparable. We cannot meet the goals of the former without shaping the latter and the Comprehensive Physical Plan. The connections between the CAP and the Comprehensive Physical Plan are inseparable. We can’t meet the goals of the former without shaping the latter accordingly — and vice versa.

The majority of UB’s greenhouse gas emissions come from the production of energy to heat, cool, and light campus buildings and to operate equipment, especially computers. The most largest source of greenhouse gas emissions is from fuels burned for transportation, including commuting to and from campus by students, faculty, and staff, and air travel by university personnel.

The CAP details how UB will achieve climate neutrality through a combination of low-to-zero energy design for new construction, extensive building retrofits, operational efficiencies, on-site generation of electricity from renewable sources, efficiency of existing energy delivery systems and facilitate opportunities for carbon offsetting, and renewable energy certificates. The Comprehensive Physical Plan details numerous actions in support of these initiatives, such as:

- Demolition of energy-intensive buildings that have outlived their usefulness;
- New construction that uses the highest standards of energy efficiency;
- Placement and clustering of new buildings to maximize efficiency of existing energy delivery systems and facilitate co-generation;
- On-site generation of electricity from renewable sources, including solar and wind; and
- Strategies to improve utilization of academic spaces and increase consolidation of administrative and support spaces.

Managing transportation supply and demand for efficiency, including:

- Improvements to campus transit, bicycling, and pedestrian services and facilities;
- Roadway changes such as roundabouts and continuous loop roads that will improve efficiency and reduce commuter emissions;
- Co-location of multiple programs (e.g., residences, classrooms, campuses) in single buildings or precincts to reduce the volume of on-campus transportation;
- Increased quantity and quality of campus life programs (e.g., residences, dining, retail) on campus to reduce the need for transportation off-campus; and
- Transportation demand management strategies to promote use of low- or zero-emission modes of travel instead of single occupancy vehicles.

Other measures to reduce our carbon footprint, including:

- Changes to land use and land cover, such as reduced paved surfaces and increased forestation, which will shelter buildings, reduce heat island effect, and sequester carbon dioxide;
- Natural regeneration strategies that minimize the use of fertilizer, equipment, and man-hours to establish and maintain landscapes; and
- Increased frequency and quality of programs on campus that provide opportunities for engagement by the UB community and residents of the Buffalo Niagara region in energy education and action.

Just as implementation of these actions will support CAP goals, implementation of the CAP will support plan implementation. By reducing its resource needs, producing a greater share of its energy on campus, and fostering a culture of innovation and sustainability according to the CAP, UB will become a leaner, fitter, and more adaptable organization, more capable of implementing the Comprehensive Physical Plan.

Delivering the Plan

Plan implementation will require a disciplined and highly collaborative approach to strategy development and project execution. This effort should include a nimble decision-making structure, effective teams of administrators working together toward shared objectives, and accountable, disciplined uses of all resources required to make this plan a reality. We have already defined the policy-making process; we have already conceived the requisite capital budgeting system and project planning, budgeting and delivery mechanisms; we have already suggested the discrete roles and responsibilities of the offices involved in the effort and their interdependence. We have begun to shape the availability of the tools – financial, legal, and organizational – that will facilitate delivery of the plan. We have only to realize the full potential of these previous decisions and bring on board the skills we do not have in sufficient measure to make this effort a complete success.

Executive Leadership and the University Planning Board

The plan cannot happen without executive engagement and sponsorship. The president, provost, and executive vice presidential team are keenly aware of this and have devised a structure to assure the strategic, collaborative, and effective decision making capacity to implement the plan.

A new University Planning Board will set broad guidelines for overall facilities policy and plan implementation, assemble the requisite teams to respond to implementation priorities and approve detailed major project programs, budgets, schedules, financing strategies and the sequencing of project work. The board will guide, receive, and decide upon all appropriate matters that need to be instituted. The board will meet monthly and make regular reports to the UB Council, the UB Foundation Board, the deans and vice presidents, the Faculty Senate Executive Committee, Professional Staff Senate Executive Committee, and student leadership.

Perhaps the most important aspect of the board’s work will be to convene the groups of staff and faculty that will create and deliver project plans within the framework of the larger plan. These teams, working in parallel, containing the necessary cross-section of university perspectives, and sharing a common sense of the objective framed by the board’s interpretation of the plan, will shape the details of the plan using our evolving system of capital facilities delivery.

The mission, functions, and structure of the University Planning Board are set forth in the appendix. It is common for organizational structures to evolve based on the experience of the team even as implementation of plans moves forward. Our expectation is that we will continue to learn and improve as our world continues.

The Capital Facilities Delivery System

Efficient, cost-effective, and high-quality implementation of the Comprehensive Physical Plan will require close and constant coordination between the University Planning Board and the university’s ongoing process of capital planning, budgeting, and project delivery. Every action prescribed in the plan must ultimately become part of one-, three-, five-, and 10-year capital budget plans for the university. At the same time, the principles, concepts, projects, and programs enshrined in the plan need to be translated into the university’s regular capital planning, budgeting, and delivery process on a continuing basis. The process by which this happens must be principled, disciplined, and clear to all of its participants.

The core principle governing this process is that all space is university space and the president is the ultimate arbiter of what and how space is planned, budgeted, designed, developed and assigned. If we are to achieve our academic goals, the creation and use of physical space to advance the academic mission must be aligned with the institutional strategic plan and the Comprehensive Physical Plan that supports it. Scarce institutional resources must be invested in strategic and coor-
Capital funding priorities must be based, in part, on a clear understanding of the condition of university capital assets. As such, University Facilities will lead an update of the FCA every five years to evaluate the architectural, civil, electrical, mechanical, and structural components of our buildings and grounds. All information in the report’s digital capital asset management database will be reviewed and updated, including replacement values, life cycle renewal/replacement schedules, code deficiencies such as compliance with the Americans with Disabilities Act, and energy performance deficiencies.

All residential, academic, research, and administrative properties will continue to be included in the FCA, whether they are state-owned or owned by a UB-related affiliate such as the UB Foundation. The update will be conducted by a consulting firm that specializes in facilities condition assessments.

Finally, the implementation of the Comprehensive Physical Plan requires a clear and authoritative capital facilities delivery process in which the steps to be taken by space management officers and all others involved are well defined, rationally sequenced, and widely understood. The basic premise of this process is that every project, regardless of size or type, will have an approved program, budget, and schedule before the project moves to the implementation phases. In addition, each project will follow a regular path through project initiation review, concept plan review, and on to design and construction.

ENLARGING THE FINANCIAL “TOOL BOX”

Implementing the plan will require securing capital resources from a wider array of sources and through a broader assortment of financial mechanisms than ever before. These must include new capital funding sources from both inside and outside the university. Some of these are wholly new; others are variations on or continuations of existing sources and mechanisms. Some combination of all of these—and perhaps more—will be needed to fulfill the ambitions of the university and this plan.

State University Construction Fund (SUCF): The SUCF conducts a regular annual review to reaffirm allocations for specific projects already approved by the legislature, to request new campus-specific projects, to review prior year critical infrastructure plan progress and expenditures, and to advocate for additional critical infrastructure funds.

Dormitory Authority of the State of New York (DASNY): The Dormitory Authority is a public benefit corporation authorized to finance and build facilities for higher education, health care providers, court facilities and certain non-profit institutions and public agencies. It coordinates the advocacy effort to secure state government funding for new university projects, oversees project delivery mechanisms for approved projects funded from a variety of sources, and oversees university-initiated capital facilities improvements funded by student dormitory fee income set aside for continuous dormitory capital improvement.

UB Foundation (UBF) and other private funding affiliates: The UB Foundation is an independent non-profit educational corporation that solicits private donations, develops real estate, and manages investments for the benefit of UB. It encourages the leveraging of its reserves for capital facility acquisition and development consistent with university priorities and good business practice. UBF funds secured for a particular project are transferred to a state construction account if the project includes a state-owned facility or is built on state-owned land. The university has been successful in advocating for state legislation for the creation of parcels of campus land that can be leased to UBF and/or to a private developer to develop for commercial use consistent with university interests, such as the University Bookstore and UB Commons, both developed by UBF.

Revenue Bond Financing Program: UB has engaged DASNY and private market capital consultants to determine how university non-state income sources can be pooled and used as collateral for capital debt financing. This approach can enable UB, by recent estimates, to borrow as much as $1 billion against appropriately developed facility business plans.

University at Buffalo: The university invests considerable funds for capital facilities improvement. These are base budget funds and operating fund reserves used to fund major capital projects. These projects are subject to the use of institutional and unit reserves for small- and large-scale renovation projects.

These are just some of the available financing sources and mechanisms for plan implementation. Additional means for capitalizing predictable income streams must be pursued. In particular, the authority and capacity to construct project pro formas that combine more than one of these means and/or mechanisms should be established to deliver capital facilities called for in the plan.

EXPANDING STAFF CAPACITY

There are key skill sets that are not available at UB today in the offices that will staff the implementation of the plan. As a crucial element of the implementation strategy supporting this plan, these skills need to be acquired. It is entirely possible that we will learn about additional staffing needs beyond those itemized below further into the implementation effort. If an effective case is made for such staff, the university should immediately be prepared to put the resources in place to hire these staff.

Lead Campus Planner: UB requires the services of an experienced campus planner to coordinate responses to detailed campus facilities planning challenges, capital budget development and execution, capital financing strategy development and capital project programming, budgeting and scheduling.

Real Estate Specialist: either a staff person or a contract with an excellent real estate firm should be engaged to guide the acquisition of property and the negotiation of public/private sector agreements related to the development of Comprehensive Physical Plan strategies and programs.

Landscape Architect: either a staff person or a contract with an excellent landscape architecture firm should be engaged to oversee the full scope of plan landscape requirements.
PUBLIC POLICY REFORMS

The University at Buffalo’s capacity to implement the plan can also be expanded through a series of vital public policy reforms that will give UB the relative autonomy to advance the goals of the plan that can be implemented quickly and achieved at no cost to the state; and that can provide a very significant impact — at UB and throughout the region and state — now and in the years to come. These include a more rational tuition policy, greater flexibility in spending and contracting, greater access to market capital, and greater autonomy to lease and purchase needed land and facilities.

A rational tuition policy: UB needs a tuition policy that provides a greater level of predictability in university revenues and student costs. Historically, tuition increases have been inconstant, unpredictable, and generally hefty, enacted primarily to replace state funding withdrawn from SUNY to balance the state general fund budget in times of crisis – the 2009 tuition increase being a case in point. This practice has introduced a level of uncertainty into the management of both household and institutional finances, and done nothing to grow the net resources of UB. The UB 2020 legislative package promulgated in support of this plan would give UB the ability to schedule small, regular tuition increases that would allow parents and students to plan to meet the costs of a college education, and provide the university with predictable levels of funding to plan its investments in academic excellence.

Such a policy is consistent with the state’s commitment to broad access to high-quality higher education. Although tuition rates would rise over time under this policy, and attending UB would be relatively more expensive overall, a part of the revenue generated would be dedicated to increased need-based aid for low-income New York state students. In this way, we could invest in broader access and greater academic excellence at University at Buffalo at the same time. All our students deserve an option of the highest quality. To provide access without excellence is discrimination.

UB also needs to be able to set tuition at levels that take into account our particular mission, costs, and needs. The ability to do so has been an essential element in the success of outstanding public research universities in California, Michigan, North Carolina, Pennsylvania, and many other states. UB needs that same flexibility in order to compete with such institutions – along with a commitment that resources gained through higher tuition will not be offset by reductions in state support.

Spending and contracting flexibility: Unleash state university systems and public research universities in many other states, spending and contracting by SUNY and UB are subject to unnecessary pre-review and approval by the offices of the state comptroller and attorney general, even when it comes to some smaller purchases and routine licenses for use of space. The New York State Commission on Higher Education, which included experts from the private sector, including independent colleges and universities, recommended in 2008 that New York streamline these practices. We need to create a level playing field for UB in relation to other state systems and public research universities. Current requirements hamper efficient business practices. But when projects can move forward quickly, enormous savings can be realized. For example, special legislation to provide more spending and contracting flexibility allowed UB’s Clinical and Translational Research Center (CTRC) and Biosciences Incubator, housed within a joint UB/Kaleida Health project, to be constructed three years quicker and at a savings of more than $18 million (on a $118 million project) through avoided escalation in construction costs, higher contractor bids, and extra financing costs. We need this kind of flexibility more broadly to save time and money in implementing the plan.

Access to market capital: UB needs the same authority that our peer institutions have to borrow funds from recognized lending agents and to engage private developers in partnerships where developer-financed facilities can be built on its campuses. These partnerships are discussed in greater detail below. This authorization is essential if the vast potential of UB 2020 is to be achieved, with significant benefits for our city, our region, and for our state. Providing the university this access will allow it to build critical research and campus-life facilities – residential, commercial and recreational facilities – on multiple tracks in accelerated time frames.

The ability to lease and purchase land and facilities: UB must be able to make the widest and best use of its land and facilities and have the ability to work with private partners and developers. With this authority, held by most of our public research university competitors, UB would be able to pursue the creation of housing, academic buildings, research complexes and other facilities in an entrepreneurial fashion utilizing public-private partnerships that leverage taxpayers’ investment with private funds. UB must also have greater latitude and a far simpler process to acquire land and facilities if we are to efficiently implement the Comprehensive Physical Plan. For example, our proposal to purchase air rights from Kaleida Health for the creation of the CTRC and Biosciences Incubator required special state legislation to move forward. Under the same constraints, implementing the relocation of the health sciences schools to downtown Buffalo will be extremely difficult. Likewise, our ability to enter into projects with multiple partners will be severely constrained. Both impediments mean opportunities will be lost, purchase prices will be higher, and the burden on taxpayers will increase.

CONCLUSION

The plan is nothing if not ambitious: thousands of new faculty, students, and staff, millions of new square feet of space, billions of dollars, and profound changes in the way we do business as an institution. Some may look at the scope of this plan and conclude that it is beyond our reach. Indeed, this chapter has enumerated some of the deficits – in our policies and processes, our organizational structure, and our authorizing legislation – that must be addressed if we are to succeed in realizing this plan. But they can and will be addressed. We may not have the full capacity to completely implement the plan now – but we will.

It is useful in this regard to think about the long upward trajectory of the University at Buffalo. As noted in Chapter 1, each generation has brought forward a new manifestation of the institution – better, bigger, and stronger. Enrollments, facilities, budgets, capital campaigns have all grown steadily greater. The talent of faculty, students, and staff has increased. As each new challenge arises, this ambitious plan will be firmly within our reach.

The plan also includes a long list of things we as a university have never done before. We have never built parking garages, or fully mixed-use facilities, or green roofs. We have never interconnected in regional transit planning nor have we subsidized public transit service. We have never nominated an historic building for the National Register of Historic Places. We have never made a “learning landscape.” But we will learn to do all of these things – because the challenges we face say that we must.

The university is an institution of learning, which means not only that we teach students or conduct research that creates new knowledge. We are an organization that learns – staff, students, faculty, and alumni alike. Each step on this path of implementation is a new opportunity for the university, as an organization, to learn new things. Each new project, each program, will be a lesson in how to implement the rest of the plan going forward – a moment of instruction about how the plan itself might be adjusted so that its greater goals and values might be manifest more fully and effectively.

Much will happen between now and the time when the vision expressed in this plan is fully realized. New technologies will come and go. The economy will go up and down and be transformed in the process. Our ideas about how to conduct higher education will evolve. Governors will succeed governors and so will presidents of this university be succeeded between now and the fulfillment of this plan. Along the way our capacity to build UB will only grow, and the university itself will become ever greater, as it has for nearly 170 years.
Resolution on Building UB: The Comprehensive Physical Plan

WHEREAS: The University at Buffalo has set as its goal to rise among the ranks of the premier public research universities of the United States; and,

WHEREAS: UB, its administration and faculty, have adopted a strategy for achieving a higher level of academic excellence through expansion of our faculty and the organization of our research effort around eight "strategic strengths"; and,

WHEREAS: The fulfillment of this strategy depends on the development of our campuses to accommodate the needs of students, faculty, and staff, as well as the reorganization of academic units across three campuses, including a new Academic Health Center on a new Downtown Campus; and,

WHEREAS: Meeting our competition in higher education will require that each of our campuses be more supportive of contemporary learning styles; seamlessly connected with each other and the communities around us; and developed in concert with the needs, aspirations and policies of the communities where we make our home; and,

WHEREAS: Achieving our goals will also require that we act as conscientious stewards of public financial resources in the management of our campuses; that we develop our campuses as a model of environmental sustainability; and that our campuses become great places that people truly love; and,

WHEREAS: UB has undertaken the preparation of a campus master plan, guided by these principles, led by our administration, and supported by a team of distinguished professionals; and,

WHEREAS: The thorough process of developing the plan has enabled the University at Buffalo to better understand the needs of its surrounding communities, and to address the concerns of our neighbors, for example by placing increased emphasis on the quality and efficiency of public transportation links among the three campuses and between the campus centers and their populations; and,

WHEREAS: The plan itself presents a compelling and convincing vision for the future of our campuses and our university that promises to meet our goals and fulfill our guiding principles; and,

WHEREAS: The Council has actively demonstrated its support of the University’s goal and strategy as stated above, and has been engaged in the extensive process of reviewing and amending the plan; and,

WHEREAS: The implementation of the plan is already in full swing with the development of new facilities for engineering, pharmacy, clinical and translational research, adult education, public outreach, child care, and student residence; now therefore,

BE IT RESOLVED: That the University at Buffalo Council does enthusiastically endorse the Comprehensive Physical Plan for our three campuses; and,

BE IT RESOLVED: That the University at Buffalo Council commits its energy and its influence to the collective work of fully implementing the plan.

Approved, September 21, 2009